July 5, 2018

Mr. Dave Graham Assistant Commissioner Chicago Department of Public Health 333 South State Street, Room 200 Chicago, Illinois 60604

**Subject:** Calumet River Terminal

10740 South Burley Avenue, Chicago, Illinois 60617

**Response to Fugitive Dust Plan** 

CEC Project 180-367

Dear Mr. Graham:

Thank you for the opportunity to provide the additional information you requested in your letter of May 24, 2018 regarding the referenced Fugitive Dust Plan for Calumet River Terminal (CRT). We are providing this information within the thirty days allowed in your letter. The additional information is organized to align with your inquiry, with attachments provided, as appropriate. A Revised Variance Request is enclosed, which includes the Revised Fugitive Dust Plan, and these are provided to document our responses to your letter.

### **Handling of Manganese**

CDPH requests that CRT move its stockpiles of manganese-bearing materials indoors and reflect his change in its Modified Dust Plan and updated variance request.

### Response:

The manganese-bearing materials, as well as all bulk solid materials (BSMs) handled by CRT have been completely moved indoors, as of June 11, 2018. There will no longer be exterior storage of materials at the CRT facility.

### 1. Introduction (page 3)

"....the facility's capacity calculation (is) to be certified by signature of an authorized representative...."

### Response:

The certification statement on page 3 of the Revised Fugitive Dust Plan includes the statement "We certify the storage capacity calculations contained in this plan are accurate, to the best of our abilities." In front of the terminal manager's signature.

2. Source Descriptions (page 5) and Site Layout Plan (Figure 1)
In the Modified Dust Plan, please provide and confirm a complete list of all materials

Mr. Dave Graham - Chicago Department of Public Health CEC Project 180-367 Page 2 of 4 July 5, 2018

handled at the facility...Please include information about the storage, handling, and dust control of pig iron, HBI, and DRI in the Modified Dust Plan...Please ensure the site map is large enough so that all words and figure on the map are legible.

### Response:

The list of material handled by CRT is included in the Revised Fugitive Dust Plan and as Attachment B to the Revised Variance Request. Note that some of the listed material is occasionally handled in containers (bulk sacks, drums and metal pails), and would not be considered to be BSMs, so the volumes listed are a conservative number. Pig iron, HBI, and DRI are no longer handled at the CRT facility. All reference to these materials has been removed from the Revised Dust Plan and the Revised Variance Request. An additional Figure 2. Site configuration has been added to the revised dust control plan that shows the area of the building expanded such that the areas of the storage bins and all wording are discernible.

### 3. BSM Stockpiles (pages 5 – 6 and 8)

In the Modified Dust Plan, please provide additional information about the two outdoor "long-term storage" stockpiles. Please include "information about what is in the piles, how large they are, how often they are disturbed, and how dust is controlled at the piles." …Please include mention of tarping stockpiles…dust controls, such as watering or tarping…"Please provide a plan, together with a reasonable timeline, for the removal of all outdoor piles of manganese-containing material."

### **Response:**

The two outdoor BSM stockpiles are no longer present at the facility, and all material storage piles are located inside the building. One of the stockpiles contained ferro scrap alloys and the other contained ferromanganese. Both have been re-located to storage bins within the building as of June 11, 2018. In addition, the storage piles within the bins containing manganese ore and ferro scrap alloys are covered by a tarp when loading/unloading operations are not being conducted. Storage of material stockpiles will no longer occur outside of the building.

### 4. Loading and Unloading (pages 5 - 6 and 8 - 9)

"In the Modified Dust Plan, please describe the indoor loading process in greater detail, with particular attention to dust control methods and means of ventilation...please further explain how dust is controlled during loading and unloading of all materials and in all conditions...The Modified Dust Plan must include more robust and detailed dust control measures to ensure compliance with the Bulk Material Regulations...if the company can commit to continuing its operations without the use of barge or rail, especially with regard to manganese-bearing materials, this detail should be added to both the Modified Dust Plan and the revised variance request."

Mr. Dave Graham - Chicago Department of Public Health CEC Project 180-367 Page 3 of 4 July 5, 2018

### Response:

Appropriate additional detail regarding loading operations has been added to Sections 3.2 and 4.1 of the Revised FDP. Loading and unloading will be conducted under 'enclosed conditions', with the activity occurring inside the building and the building doors closed. We understand this will make Part D of the regulations no longer applicable to the facility. The company has discontinued the use of barge shipping, but will maintain its capability to ship material via rail. Loading of rail cars will always be done indoors with the overhead doors closed at each end of the building, as further described in the plan.

### 5. Crushing, Bagging, and Screening (pages 6 – 7 and 9)

In the Modified Dust Plan, please explain how emissions are controlled to ensure compliance with Section 11-4-720 of the Municipal Code and relevant State regulations. ...In the Modified Dust Plan, please explain how the building where material is stored and handled is sealed to prevent the escape of dust during storage, handling, and processing activities.

### Response (now pgs. 6-8):

The crushing process has been discontinued at this facility. The Revised Fugitive Dust Plan contains additional language in Sections 3.4, 3.5, 4.2, and 4.3 describing dust controls in place during bagging and screening. The storage building is an approximately 700-footlong structure, with overhead doors at each end sufficient in size for a truck to move through. An additional overhead door is located at the northeast end of the building where the rail line enters the building. All doors are closed when loading/unloading is occurring in the building, and remains closed for at least one minute following these activities to allow dust to settle. Building ceilings are 65 feet in height, with vents present at the roof peak. There is no direct ventilation present over the storage bins.

### 6. Roadway Drag-out (pages 7 and 9-10)

"In the Modified Dust Plan, please confirm compliance with the "paving of, not a majority, but 'all Internal Roads within the Facility that are used for transporting or moving material."...Please provide documentation regarding who owns the unpaved access road and why it cannot be paved."... Please include details to show CRT's compliance with cleaning of paved roadways within one quarter mile of the perimeter of the facility... "CDPH requests that rumble strips be installed at the facility and that the Modified Dust Plan include a section regarding the cleaning of outgoing trucks."

### Response (now pgs. 8, 9 and 12):

All areas on which trucks travel on site are asphalt paved. The facility property extends only ten feet from the end of the building where trucks exit the property, making it impractical to install a wheel wash system. As stated in the Revised Fugitive Dust Plan, trucks travel on only paved areas when they are on site. The paved areas are routinely monitored and swept, with water spray applied as needed. Trucks are inspected as they leave the facility by the scale personnel. Any accumulation of material observed on the trucks' wheels is cleaned with a hose located adjacent to the exit door of the building. The

Mr. Dave Graham - Chicago Department of Public Health CEC Project 180-367 Page 4 of 4 July 5, 2018

access road from the property line and extending ¼ mile from the property is owned by others. Documentation of this ownership is included in, and discussed in the Revised Variance Request. This road has not been paved recently, and is considered unpaved. Therefore, its surface cannot be effectively cleaned.

### 7. Recordkeeping (page 12)

"The Modified Dust Plan must include a protocol for the required opacity readings, which must be conducted by a trained and certified professional opacity reader, and should identify multiple locations for opacity observations that include field-determined process-specific activities where dust is potentially generated...The Modified Dust Plan must also set forth in detail the protocol for conducting the required quarterly test of visual emissions."

### Response (now pgs. 15-16:

Quarterly visual and opacity readings of emissions from the building will be conducted, in accordance with the procedures described in Section 4.8 of the Revised Fugitive Dust Plan.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Eljabeth Schutzty
Elizabeth Schwartz

Project Manager

Bruce Dumdei, Ph.D.

Buce Dundei

Vice President

Enclosure: Revised Variance Request

cc: C. Sikorski, Calumet River Terminal

 $P:\ \ 2018\ \ 180-367\ \ Final\ \ Documents\ \ \ CDPH\ \ Response\ \ June\ \ 2018\ \ \ 180-367\ \ Response\ \ to\ \ CDPH\ \ comments\ \ on\ \ FDP\ \ 062818.docx$ 

### **Certified Mail - Return Receipt Requested**

June 28, 2018

Dave Graham, Commissioner Chicago Department of Public Health 333 South State Street, Room 200 Chicago, Illinois 60604

**Re:** Revised Variance Request

**Fugitive Dust Plan** 

**Bulk Material Storage Rules and Regulations** 

**Calumet River Terminal** 

10740 South Burley Avenue, Chicago, Illinois 60617

Dear Commissioner Graham,

This Revised Variance Request for Calumet River Terminal's (CRT) terminal located at 10740 South Burley Avenue in Chicago, Illinois, is submitted in accordance with your request dated May 24, 2018 and received by CRT on June 6, 2018. In accordance with the provisions set forth in Part E(8.0)(2) of the City of Chicago Department of Public Health Article II – Air Pollution Control Rules and Regulations for Control of Emissions from the Handling and Storage of Bulk Material Piles dated March 13, 2014 (CDPH regulations), this is an application for variances from certain portions of the CDPH regulations. The original Variance Request was submitted June 12, 2014, with a response to comments submitted on February 24, 2015.

CRT receives and stores until shipped, bulk commercial metals, with a complete list of products currently handled listed in Attachment A. Operations have declined since the submission of the original Variance Request. In 2017, CRT received approximately 922,000 pounds of non-affected material, and 3.9 million pounds of affected material. This has decreased significantly from 2016, when the facility received 2.8 million pounds of non-affected material and 49 million pounds of affected material. CRT handles mostly manganese ore, silicon manganese, various grades of ferromanganese, ferrosilicon, and scrap ferro alloys. Smaller quantities of ferromolybdenum, ferrotitanium, silicon zirconium, fluorspar, electrolytic manganese are typically on hand. Minor amounts of other affected (manganese containing) and non-affected materials may also be handled as required by customers. The affected materials that are handled include ferromanganese alloys, silicomanganese alloys, electrolytic manganese, and manganese ore. Note that blast furnace iron, hot briquetted iron and direct reduced iron are no longer handled by CRT. CRT handles and stores the bulk solid material (BSM) for its customers, but does not take ownership of the material. The description of the processes employed are provided in the Fugitive Dust Plan (FDP), enclosed as Attachment B.

The FDP describes the location and area potentially affected by the BSM at the CRT facility. The FDP has been updated since our initial Variance Request, most recently to reflect current operations and comments received from the Chicago Department of Public Health (CDPH) to a March 2018 Revised Fugitive Dust Plan (Revised FDP) submittal. The pertinent data regarding the area potentially affected is shown by a demographic profile of the surrounding area based on the 2010 Census, and is from the United States Environmental Protection Agency (USEPA) ECHO Data Base (Attachment C). Demographic data presented is for a radius of three miles from the coordinates of the address location.

CRT is requesting variances be permanently granted from several of the CDPH regulations set forth in Part B of the CDPH regulations, in accordance with the provisions set forth in Part E(8.0)(2) of the CDPH regulations. The regulations, from which CRT requests variances, are discussed below. Descriptions are provided of the activities for which variances are requested.

### (1) Part B (3.0)(4)-Fugitive Dust Monitoring

The applicant requests a variance to be exempt from the requirement for installation and maintenance of permanent fugitive dust monitors.

Materials handled at the CRT facility that meet the BSM definition include alloys of various types of metals. These materials are all very dense, with particles that settle quickly and within the immediate vicinity of a transfer operation, and do not readily become airborne or scattered by the wind. The densities of these materials range from 114 pounds per cubic foot to as much as 220 pounds per cubic foot. For comparison, the density of bulk petroleum coke is about 48 pounds per cubic foot. Petcoke is friable, and generates fugitive dust, which easily becomes airborne or scattered by the wind. Furthermore, all BSM stockpiles, loading and unloading activities are now conducted indoors, significantly reducing the potential for generation of fugitive dust.

The facility is within an industrial region. The nearest residential properties are located approximately 600 feet east of the facility. There have never been any community complaints regarding visible emissions from this facility's operations, even when the facility stored material outdoors. Facility operations do not result in off-site fugitive dust emissions. Based on historic quantities handled, and on published emission factors, particulate emissions (PM<sub>10</sub>) from CRT's BSM handling operations were negligible when storage was outdoors, and remain insufficient to generate opacity greater than 10-percent or fugitive dust visible beyond the property line of the facility [3.0(2)] now that storage and loading are conducted indoors.

Fugitive dust monitoring is intended to detect pollutant concentrations elevated over background levels that can be credited to source emissions. At this location, establishing a reliable background level will be impractical, because of a neighboring major source of fugitive dust. Immediately to the south and east of the facility is an active storage operation for petroleum coke, which operates a large storage facility for material that is ½ to ½ the density of the materials handled by CRT.

Area background levels have in the past been demonstrated by Illinois Environmental Protection Agency (IEPA) testing to be elevated by this neighboring source to levels well above normal background. While the operations at the neighboring facility have been revised to reduce fugitive

dust, it will still be difficult for fugitive dust monitors at CRT to detect small incremental fugitive dust emissions with a larger background source of fugitive dust immediately next door.

The neighbor has operated five fence-line air monitoring stations, with daily results published by USEPA at the link below. The Northwest (NW) and North (N) monitors are located immediately at the property line with CRT, and are close to the building in which BSM activities are undertaken by CRT. The Northeast (NE) monitor is located near the access road to CRT.

http://www2.epa.gov/petroleum-coke-chicago/kcbx-fenceline-air-monitoring-data

For the past twelve months of available data (1/31/2016 through 1/31/2017), daily PM10 values remained near background levels and did not evidence any detectable contribution from CRT operations. Weekday values were not materially different from weekend values. CRT BSM handling, limited to weekdays, had no detectable effect on dust emissions. Analyses of air monitoring filters were also done for metals, and these results are consistently below levels of concern and do not evidence any detectable contribution from CRT operations. This ambient air monitoring demonstrates that CRT activities, operations, and storage of bulk materials emit no particulates that could create a public nuisance or adverse impacts to the surrounding area, environment, or property uses, even before BSM storage was relocated indoors.

An engineer's estimate for installation of the dust monitoring network is attached (Attachment D). This network would include one met station and four dust stations with bluetooth telemetry. Costs for installation are \$111,750 and annual operating, maintenance and reporting costs are \$19,680 per year. Assuming a five-year equipment life, the annualized costs are about \$42,030 per year.

CRT is a small business with two full time employees. Recovering these costs will require CRT to increase prices and will cause customers to seek other outlets. CRT considers this loss of business and revenue an unreasonable hardship.

As described in the Revised FDP, facility operations will achieve ordinance goals by implementing best management practices to ensure that under no condition does opacity exceed 10%, nor will fugitive dust be visible beyond the property line of the facility [3.0(2)]. Application of best management practices is a more reasonable approach where no BSMs are stored outside, and there are no adjacent receptors.

The Revised FDP is effective in mitigating dust from BSM activities. Significant changes have been made to the facility's operations to minimize the potential for generation of fugitive dust, including discontinuing of barge loading/unloading activities, discontinuing of the ore crushing process, and movement of all BSM storage piles to the interior of the storage building. Enclosed are the first quarter 2018 daily logs (Attachment E), which demonstrate the plan is being implemented and that activities do not create a public nuisance or adversely impact the surrounding area, environment, or property uses.

### (2) Part B (3.0)(5)-Wind Monitoring

The applicant requests a variance to be exempt from the requirement for the facility to operate a permanent device to monitor wind speed and direction.

Information from such a device is useful in event the facility maintained large outdoor piles of BSM and had installed PM10 monitors. However, the facility unloads and loads BSM indoors, and stages them in piles inside of concrete block lined bins, indoors. The regulation indicates the monitor should be centrally positioned in relation to the storage piles, which would be inappropriate for indoor storage piles. Building doors are closed during loading or unloading activities. The facility has on-line access to real-time wind speed and direction information from Midway Airport and the Water Intake Crib, which are considered representative of the area of the CRT facility. Lastly, per the FDP, during episodes of wind conditions in excess of 25 miles per hour, the building doors will be closed except during ingress and egress of trucks.

### (3) Part B (3.0)(7) - Transfer Points

The applicant requests a variance to be exempt from the transfer point requirement [3.0(7)(d)] to transfer only moist material [2.0(15)] with moisture content of at least 3% by weight. CRT handles "dry materials," bulk materials that are not permitted to get wet per customer specifications. The dry materials consist of metal alloys that are used by the steel industry. These alloys cannot get wet because of the high potential for risk of explosion and other catastrophic safety concerns when added to molten metal at a steel plant furnace. Therefore, this material must be stored inside the building, protected from the rain, and transferred in/out of covered conveyances in a dry state.

The FDP also describes best management practices to maintain compliance with the opacity limit of 10% and no fugitive dust visible beyond the property line of the facility [3.0(2)]. CRT employs the other measures as noted in the FDP, which describes measures to control dust during material transfer. All material transfers are managed using one or more of the dust control measures cited by ordinance as noted in the plan:

- Doing all loading/unloading of trucks or railcars and storage indoors;
- Ensuring the overhead doors at each end of the building are closed during loading/unloading;
- A minimum one-minute wait time after loading or unloading before the doors are opened to allow fugitive dust to settle;
- Limiting the stockpile disturbed area;
- Reducing tumbling of materials being moved;
- Removing material from the stockpile bottom;
- Limiting the vertical drop height of materials;
- Cleaning the floor surface after a stockpile is removed;
- Covering indoor stockpiles of manganese ore and ferro scrap alloys with tarps;
- Watering is utilized as needed on floor and roadway surfaces; and
- Truck trailers are covered with tarps or enclosed hopper trailers are used, and rail shipments utilize enclosed boxcars.

Conveyors are not used for loading of trucks or railcars.

### (4) Part B (3.0(8)(d) - Transport

The applicant previously requested a variance to be exempt from transport requirement [3.0(8)(d)] for wheel wash and rumble strips; however, based on clarification in the CDPH response to the original request, this variance request was withdrawn because the criteria were met.

All truck traffic on-site travels on paved surfaces that are regularly maintained to prevent dust accumulations. Trucks are also inspected prior to leaving the site for accumulations of dust on their tires. If accumulation is found on tires, they are then cleaned with a hose that is accessible at the building egress point. Any dust carried onto the public roadways, located ¼ mile from the site, would be picked up from off-site roadways. The ownership of the off-site roadway is documented in the Cook County Tax Portal for the legal parcel of the owned roadway, included in Attachment F. CRT is not responsible for the pavement and improvement of a third party's property, but does utilize a water truck as needed (discussed in the Revised FDP) on that portion of the roadway traveled only by its trucks.

### Part B (8.0)(2) Additional Requirements of the Variance Application

This section addresses additional requirements of the variance application under Section 8, Item 2, c) through i).

**b**) This section requests: i) "a description of the process or activity for which the variance is requested," and ii) "pertinent data on location, size, and the population and geographic area affected by, or potentially affected by, the process or activity". The description of the process is provided in the FDP as Attachment B and is supplemented with additional information provided herein and attached. The FDP has been updated since our initial request, in response to comments by IEPA.

The pertinent demographic data is shown by a demographic profile of the surrounding area based on the 2010 Census, and is from the USEPA ECHO Data Base (Attachment C). Demographic data presented is for a radius of three miles from the coordinates of the address location.

- c) The quantity and types of materials subject to variance are described in the FDP and in Attachment B.
- d) This variance request demonstrates that Calumet River Terminal's BSM activities create negligible fugitive dust emissions that are insufficient to generate opacity greater than 10% or fugitive dust visible beyond the property line of the facility [3.0(2)]. Facility operations have been revised since the original request to move all BSM handling and storage indoors. The facility is also remote from receptors in residential areas (approximately 600 feet from building doorway to nearest residence). Issuing the variances cannot create a public nuisance or adversely impact the surrounding area, environment, or property uses.

- **e**)(i) The regulation requiring monitoring imposes an unreasonable hardship in excessive cost and resource commitment for a small company with a workforce of only two employees. Monitoring is inappropriate where all BSM is maintained indoors and cannot generate emissions visible at the property line or fugitive dust above background levels. Application of best management practices is a prudent approach where no bulk solid materials are stored outside, and there are no nearby receptors. At this location, the presence of a neighboring source of fugitive petcoke dust also makes a requirement for particulate monitoring unreasonable.
- e)(ii) This variance application does not claim timeframe constraints such as permitting delays or force majeure.
- **e**)(iii) Proposed alternative measures are preferable because they accomplish the objectives of the ordinance, including assurance that there are no impacts to human health or the environment. They eliminate unreasonable measures causing a competitive disadvantage to a vital contributor of jobs and investment to the south side of Chicago, an area targeted by the city for economic renewal and reinvestment.
- f) The Fugitive Dust Plan describes compliance and best management practices. The facility is conforming to this plan and is in compliance with the Ordinance, with the exception of those variances requested.
- **g**) Alternate methods of compliance and factors influencing the choice of applying for a variance are described herein, and in the Fugitive Dust Plan.
- **h**) The applicant is Calumet River Terminal, and their authorized representative since 2016 has been Ms. Cheryl Sikorski, Manager.
- i) Not applicable.

### **Compliance Program**

The FDP sets forth the compliance program, best management practices and demonstration that facility management of BSM will not adversely impact the surrounding area, environment or property uses. CRT's variance application is limited to regulations under Part B. The facility has never managed coal or coke materials regulated under Part C. All loading and storage operations are contained within an enclosed building, making the facility not subject to regulation under Part D. CRT proposes reasonable conditions as set forth in the FDP. CRT understands a variance issued by the Commissioner may be revoked if "operation of the Facility is creating a public nuisance or otherwise adversely impacting the surrounding area, surrounding environment, or surrounding property uses."

### **Change in Operations**

CRT commits to providing a thirty-day advance notification for any expansion or change in operations subject to a variance issued by the Commissioner.

## Calumet River Terminal Ltd., 10740 S Burley Avenue Chicago, IL 60617

We are now operating under the procedures described in the FDP. We manage only heavy, metallic, BSM at the facility. Materials are managed within an enclosure and under procedures to minimize fugitive dust, as set forth in the FDP.

Thank you for your attention to this matter. Please contact me if you have any questions or wish to have a CDPH representative visit the facility.

Sincerely,

Cheryl Sikorski, Manager Calumet River Terminal

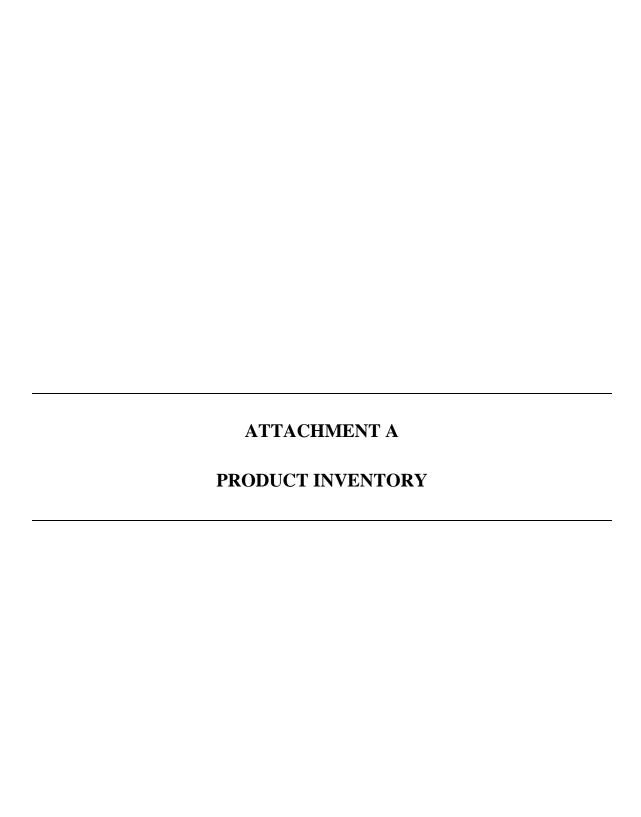
Attachments: Attachment A - Product Inventory

Attachment B - Fugitive Dust Plan Attachment C - Demographic Data

Attachment D - Dust Monitoring Budgetary Costs

Attachment E - 2018 Inspection Logs

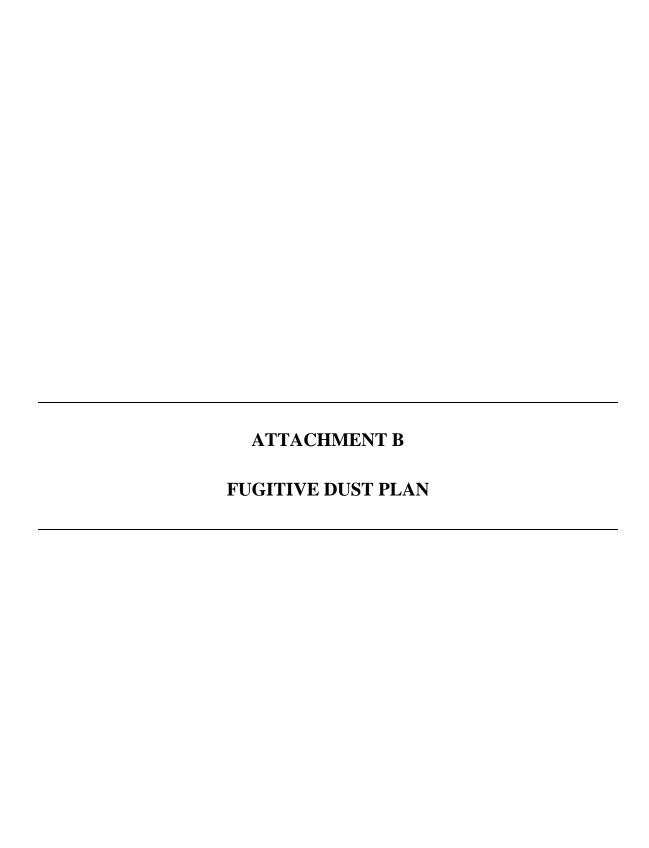
Attachment F - Access Road Ownership Documentation





## TABLE 1 CRT ANNUAL MATERIAL ON HAND AS OF JUNE 2018

Bulk Solid Material(s)				
75% Ferro Silicon	103,648			
Calcium Silicon Hazardous	27			
Cerium Misch Metal	100			
Fe Columbium	0			
Ferro Molybdenum	0			
Ferro Titanium	65,452			
Ferro Vanadium	0			
Nitrided Vanadium	0			
Ferro Silicon Zirconium	40,400			
Fluorspar	31,500			
High Carbon Ferro Chrome	4,177,779			
Low Carbon Ferro Chrome 10% grade	887			
Camar Eass Allana	395,882			
Scrap Ferro Alloys	373,662			
subtotals:	4,815,675			
	4,815,675			
subtotals:	4,815,675			
subtotals:  Bulk Solid Material	4,815,675			
subtotals:  Bulk Solid Material  Electrolytic Managanese	4,815,675 l(s) 39,025			
Bulk Solid Material Electrolytic Managanese High Carbon Ferro Manganese	4,815,675 (s) 39,025 405,072			
Bulk Solid Material  Electrolytic Managanese  High Carbon Ferro Manganese  - Low Phosphorous	4,815,675 (s) 39,025 405,072 0			
Bulk Solid Material  Electrolytic Managanese  High Carbon Ferro Manganese  - Low Phosphorous  High Carbon Ferro Manganese	4,815,675 (s) 39,025 405,072 0 682,320			
Bulk Solid Material  Electrolytic Managanese  High Carbon Ferro Manganese  - Low Phosphorous  High Carbon Ferro Manganese  Low Carbon Ferro Manganese	4,815,675 (s) 39,025 405,072 0 682,320 0			
Bulk Solid Material  Electrolytic Managanese High Carbon Ferro Manganese - Low Phosphorous High Carbon Ferro Manganese Low Carbon Ferro Manganese Low Carbon Ferro Manganese	4,815,675  39,025  405,072  0  682,320  0  29,369			
Bulk Solid Material  Electrolytic Managanese High Carbon Ferro Manganese - Low Phosphorous High Carbon Ferro Manganese Low Carbon Ferro Manganese Low Carbon Ferro Manganese Medium Carbon Ferro Manganese	4,815,675  39,025  405,072  0  682,320  0  29,369  237,719			
Bulk Solid Material  Electrolytic Managanese High Carbon Ferro Manganese - Low Phosphorous High Carbon Ferro Manganese Low Carbon Ferro Manganese Low Carbon Ferro Manganese Uw Carbon Ferro Manganese Ustra-Low Carbon Ferro Manganese	4,815,675  39,025  405,072  0  682,320  0  29,369  237,719  83,397			
Bulk Solid Material  Electrolytic Managanese High Carbon Ferro Manganese - Low Phosphorous High Carbon Ferro Manganese Low Carbon Ferro Manganese Low Carbon Ferro Manganese User Carbon Ferro Manganese Ultra-Low Carbon Ferro Manganese Ultra-Low Carbon Ferro Manganese Manganese Ore	4,815,675  (s)  39,025  405,072  0  682,320  0  29,369  237,719  83,397  5,013,724			
Bulk Solid Material  Electrolytic Managanese High Carbon Ferro Manganese - Low Phosphorous High Carbon Ferro Manganese Low Carbon Ferro Manganese Low Carbon Ferro Manganese User Carbon Ferro Manganese Ultra-Low Carbon Ferro Manganese Manganese Ore Nitride Medium Carbon Ferro Manganese	4,815,675  39,025  405,072  0  682,320  29,369  237,719  83,397  5,013,724			
Bulk Solid Material  Electrolytic Managanese High Carbon Ferro Manganese - Low Phosphorous High Carbon Ferro Manganese Low Carbon Ferro Manganese Low Carbon Ferro Manganese Ultra-Low Carbon Ferro Manganese Ultra-Low Carbon Ferro Manganese Manganese Ore Nitride Medium Carbon Ferro Manganese Low Carbon Silicon Manganese	4,815,675  39,025  405,072  0 682,320  29,369 237,719 83,397 5,013,724 27 0			



## **FUGITIVE DUST PLAN**

## CALUMET RIVER TERMINAL 10740 SOUTH BURLEY AVENUE CHICAGO, COOK, ILLINOIS

## **Prepared For:**

## **CALUMET RIVER TERMINAL, LTD**

## **Prepared By:**

## CIVIL & ENVIRONMENTAL CONSULTANTS, INC. LOMBARD, ILLINOIS

CEC Project 180-367

**JUNE 2018** 

### **FACT SHEET**

The Calumet River Terminal (CRT) is a warehouse operation located at 10740 South Burley Avenue in Chicago, Illinois, in an industrial area along the Calumet River. The property is surrounded to the south and east by the KCBX petroleum coke storage facility and on the west and north, respectively, by the Calumet River and a Bayou Steel Corporation steel warehouse/depot. The CRT employs best management practices to prevent fugitive dust from being generated by its operations.

Bulk solid materials (BSM) handled at this facility arrive by and are loaded out to trucks or occasionally railcars. CRT handles and stores the BSM for its customers, but does not take ownership of the material. CRT makes every effort to control the release of dust from the BSM, as this constitutes a loss of product to its customers. Fugitive dust management practices include loading/unloading within the building, routine inspections, roadway sweeping, spill cleanup, minimized drop distances, and stockpile and vehicle tarping. Practices are intended to conform to the State of Illinois and City of Chicago Air Pollution Control Rules and Regulations. The terminal has never had a complaint from its neighbors regarding fugitive dust or particulate matter emanating from its operations.

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1 aut	<b>→.</b>	Visible Ellissions and Opacity Log				

### 1.0 INTRODUCTION

This Fugitive Dust Plan (FDP) has been prepared for the Calumet River Terminal (CRT) to mitigate potential impacts to air quality resulting from fugitive dust associated with the facility's operations. The FDP will be operated in compliance with the City of Chicago Department of Public Health Article II - Air Pollution Control Rules and Regulations for Control of Emissions from the Handling and Storage of Bulk Material Piles (Parts A through E), dated March 31, 2014, as well as with Title 35 of the Illinois Administrative Code (35 IAC) Subpart K. The FDP will be reviewed and updated if needed on an annual basis and submitted to the Chicago Department of Public Health for review and approval on or before January 31 every year. Additionally, the facility will submit an amended FDP with any changes, modifications, or additions to the facility's operations.

This amended plan addresses changes in the operation of the facility, including moving all outdoor storage of bulk solid materials (BSM) indoors as of June 11, 2018, the discontinuance of storing several types of BSM, the discontinuance of the crushing process, and a general reduction in overall throughput at the facility. We have also revised the Sweeping/Watering Log form to separately record incidences of suspension of our activities due to high winds, and added a log of visual inspections of opacity and visual emissions from the facility, as requested by City of Chicago representatives.

This FDP characterizes the sources of fugitive dust/particulate matter emissions. For each source, control measures are identified that are currently implemented. We certify the storage capacity calculations contained in this plan are accurate, to the best of our abilities. CRT is committed to preventing visible emissions through the implementation and regular review and amendment to this plan. This FDP has the full approval of CRT ownership. CRT has committed the necessary resources to implement the measures described in this plan.

We acknowledge additional requirements include:

- Maintaining a complete copy of the FDP at the facility.
- Making the FDP available for inspection during normal business hours.
- Notifying the Chicago Department of Public Health (CDPH) and amending the plan as needed to reflect changes in the facility or its operation.
- Reviewing the plan annually and submitting it to the CDPH.

The terminal manager has the authority to commit the necessary resources to implement this plan.

Cheryl Sikorski
Manager's Signature

CHERYL SIKORSKI 07/05/18

Name Date

### 2.0 FACILITY SETTING

The CRT is located in an industrial area on the Calumet River, approximately 15 miles south of downtown Chicago. The property is approximately 5 acres in size, and contains an approximately 80,000-square-foot warehouse. The property is surrounded to the south and east by the KCBX petroleum coke storage facility, and on the west and north by the Calumet River and a Bayou Steel Group steel warehouse/depot.

The river elevation at the site is 575 feet above mean sea level. Site elevations are approximately 590 feet above mean sea level. Elevations are consistent throughout the surrounding areas.

According to meteorological data compiled from several online sources (including www.myforecast.com, www.intellicast.com, www.idcide.com, usclimatedata.com, and www.city-data.com), Chicago, Illinois receives on average 38.01 inches of precipitation annually. Winds are predominantly southwesterly throughout the year, with an average wind speed of 9.25 knots. Air temperatures are temperate with average highs in the summer around 80 degrees Fahrenheit and average lows in the winter ranging from 18 to 30 degrees.

### 3.0 SOURCE DESCRIPTIONS

The following sections describe the specific sources of fugitive emissions. Dust control methods are discussed only in Sections 4.0 and 5.0.

### 3.1 BULK SOLID MATERIALS - PART B (3)(B)

CRT receives and stores until shipped, bulk commercial metals, with a complete list of products currently on-hand included in the table below. CRT handles mostly manganese ore, silicon manganese, various grades of ferromanganese, ferrosilicon, and scrap ferro alloys. Smaller quantities of ferromolybdenum, ferrotitanium, silicon zirconium, fluorspar, electrolytic manganese and typically on hand. Minor amounts of other affected (or manganese-containing) and non-affected materials may also be handled as required by customers. Manganese-containing materials that are handled include ferromanganese alloys, silicomanganese alloys, electrolytic manganese, and manganese ore. Blast furnace iron, hot briquetted iron and direct reduced iron are no longer handled by CRT. CRT handles and stores the BSM for its customers, but does not take ownership of the material.

CRT ANNUAL MATERIAL ON HAND AS OF JUNE 2018						
Non-Affected Bulk Solid Material(s) (tons)		Affected Bulk Solid Material(s) (tons)				
75% Ferro Silicon	103,648	Electrolytic Manganese	39,025			
Calcium Silicon Hazardous	27	High Carbon Ferro Manganese	405,072			
Cerium Misch Metal	100	- Low Phosphorous	0			
Fe Columbium	0	High Carbon Ferro Manganese	682,320			
Ferro Molybdenum	0	Low Carbon Ferro Manganese	0			
Ferro Titanium	65,452	Low Carbon Ferro Manganese-0.5C	29,369			
Ferro Vanadium	0	Medium Carbon Ferro Manganese	237,719			
Nitrided Vanadium	0	Ultra-Low Carbon Ferro Manganese	83,397			
Ferro Silicon Zirconium	40,400	Manganese Ore	5,013,724			
Fluorspar	31,500	Nitride Medium Carbon Ferro Manganese	27			
High Carbon Ferro Chrome	Carbon Ferro Chrome 4,177,779 Low Carbon Silicon Manganese		0			
Low Carbon Ferro Chrome 10% grade	887	Silicon Manganese	588,855			
Scrap Ferro Alloys	395,882	subtotals:	7,079,508			
subtotals:	4,815,675	TOTALS:	11,895,183			

"BSM" refers to any solid substance or material that can be used as a fuel or an ingredient in a manufacturing process and that can become airborne or scattered by the wind. The materials handled at the facility meet the BSM definition. However, all bulk materials handled have a high density due to their metallic composition. Therefore, particulate matter released during handling will quickly settle back to grade, is not likely to become airborne or cross property lines, and will not reach the nearest residential property, approximately 600 feet away. All material handling is performed indoors with the building doors closed. The only building ventilation is from roof vents located 65 feet above the working surface.

The cargos typically arrive and depart via trucks. The facility no longer receives material by barge but does have a track siding to receive/ship materials by rail on a rare occasion. While on-site, bulk materials are staged in bins inside the warehouse, as shown in Figure 1. In 2017, CRT received approximately 922,000 pounds of non-affected material, and 3.9 million pounds of affected material. This has decreased significantly from 2016, when the facility received 2.8 million pounds of non-affected material and 49 million pounds of affected material, and future throughput is anticipated to be at or below the 2017 levels.

### 3.2 BSM STOCKPILES, LOADING, AND UNLOADING - PART B (3)(B)

Section 3.07 of the CDPH Regulations (Transfer Points) requires that: All material transfer points need to be maintained such that fugitive dust does not exceed a 10% opacity limit by using one of four options: a) total enclosure, b) water spray system sufficient to control fugitive dust emissions during operations, c) vented to air pollution control equipment, or d) transfer only moist material in a manner that minimizes the exposed drop.

Transfers are performed inside of the building while access doors are closed providing a total enclosure for the operation, meeting the above requirement using option "a)" of total enclosure. This succeeds in preventing the generation of a 10% opacity in the ambient air at the site. Current dust control measures employed on indoor and outdoor roadways, as described below, including sweeping, truck tarping, and a maximum vehicle speed of 8 mph act to prevent the amount of loose material carried out of the facility by trucks. Also, because all operations and storage are done indoors, Part D of the CDPH Rules and Regulations for Bulk Storage Materials does not apply to the facility.

CRT handles "Dry Materials", which are bulk materials that are not permitted to get wet per customer specifications. The Dry Materials consist of metal alloys that are used by the steel industry. These alloys cannot get wet because of the high potential for risk of explosion and other catastrophic safety concerns when added to molten metal at a steel plant furnace.

CRT uses indoor stockpile storage of non-ferroalloy and ferroalloy materials. Loading/unloading operations of Dry Materials involving trucks are completed within an enclosure, within a bulk material storage building. Loading will not commence until both doors are closed. The layout of the storage locations in the building are identified on Figure 2.

The incoming materials are received by truck, unloaded inside of the building, and stored in piles inside of the building. No conveyors are utilized and no unloading or loading is done outdoors. Full size trucks from off-site are unloaded to the building floor, in/near the bin to be used for storage in a manner that minimizes drop heights. Based on the nature of the truck unloading process, the material is choke fed to the ground, and the driver usually has to pull forward to ensure that all material is discharged from the truck. A minimum one-minute wait time for trucks after unloading will be used before the doors are opened to allow fugitive dust to settle.

The storage piles are created by CRT's front-end loader pushing the material further into the bin, and therefore, piles are limited to a possible height at the peak of up to 12 feet, and typically are lower. Each pile is in a designated "bin" area to identify its location in the facility's records. Concrete block walls are used to segregate the bins and retain the piles. Storage piles within the bins containing manganese ore and ferro scrap alloys are covered by a tarp when loading/unloading operations are not being conducted. Material is stored until shipped out, resulting in very few onsite transfers of material. The bin locations are shown on Figure 2.

The materials ship out in trucks, and on rare occasion, by rail. Loading of trucks is done indoors with the building doors shut. A front-end loader moves material from where it is stored to a truck, dropping it over the side into the truck bed. One truck carries up to 23 tons of material. Loading a truck takes about ten minutes, resulting in a drop rate of approximately 135 tons per hour, and emissions per single loading event of approximately 0.1 pound. The loading is performed indoors, and due to the high density of the material, fine particulates do not mobilize and dusts settle quickly in the vicinity of the drop area. Truck beds of the ferro alloys are covered with a tarp prior to leaving the facility. A minimum one-minute wait time will be used for trucks after loading before the doors are opened to allow fugitive dust to settle.

Shipment by rail is done in boxcars. The boxcar is pulled into the building, the building doors closed, and the front loader places material onto the floor of the boxcar via its 10-foot wide side door. The loader's bucket is placed approximately four feet into the car, and material is dropped from an approximately 3-foot height with the bottom of the bucket three inches from the floor, minimizing dust plumes outside of the boxcar. A bobcat inside of the boxcar will move the dropped material to the ends of the car. One boxcar has a capacity of 70 to 100 tons. The loading/unloading activities cannot, under any conditions generate opacity greater than 10%, or visible fugitive dust outdoors, beyond the property line of the facility.

### 3.3 CALCULATION OF MAXIMUM STORAGE CAPACITY - PART B (3)(D)

Bins 0 through 7 and 11 are located along the north side of the building, and have a maximum total capacity of approximately 8,700 tons, based on the weight of the densest material handled. Bins 12-20, 26, 27, 29, 30, and 31 are located along the south side of the building, and have a maximum total capacity of approximately 5,800 tons, for a maximum building capacity of up to 14,500 tons. The typical capacity by weight is lower, due to lower density material being stored. Additionally, some materials are stored packaged (and therefore not considered to be BSMs), utilizing more square feet of space per ton of material. Material densities range from 114 to 220 pounds per cubic foot.

### **3.4 BAGGING - PART B (3)(B)**

Within the building, some of the ferroalloy materials are occasionally bagged into packaging upon customer request. Bagging equipment is operated to contain particles within the product for transfer. The equipment used has no exterior exhaust. The only exhausts from the building are the doors at each end (open for truck entry and exit, but closed during bagging operations) and vent fans at the peak of the roof, which is 65 feet above the working floor of the building. The bagging equipment is located approximately 150 feet from the nearest door.

The bagger unit is a simple funnel, allowing material loaded by the front-end loader at the top to fall into the bag or container attached to the bottom. The bagger unit allows ferroalloys to be bagged into 2,000- to 4,000-pound supersacks; 25- to 50-pound bags or cans; or 551-pound steel drums. Once placed into containers, the material is no longer considered to be BSM, as it cannot be become airborne or be scattered by the wind.

### **3.5 SCREENING - PART B (3)(B)**

If a customer requests that material be screened to separate nugget sizes, the front-end loader will be utilized to place a load of material onto a slanted metal box screen. The smaller sized pieces of material are collected beneath the screen and the larger pieces roll off the top, forming two separate piles. With this process, there is the potential for fugitive dust to be released when material is deposited onto the screens. Again, the screening is performed indoors; this particulate is very dense material and settles out quickly. The screening will only be done with the building doors shut, and the movable screen will be located at least 100 feet from the nearest door when in use.

### 3.6 ROADWAY DRAG-OUT - PART B (3)(C)

The roadways within the facility are under roof or paved. Incoming trucks enter the facility via the ¼-mile long, gravel right of way entrance road, an off-site ingress owned by the adjacent property owner. Trucks enter the building at the northeast end, crossing the scale, and after

loading/unloading, they subsequently exit the south end of the building. They then turn around on the paved dock area, re-enter the building via the south door, are weighed on the scale and exit at the northeast end again. During rare occasions of high traffic volumes inside the building, trucks may exit the south end of the building, turning to the east and north on the exterior paved areas, crossing onto a gravel right of way on the adjacent KCBX property to the south of the building, to reach the gravel entrance road.

The off-site unpaved right-of-way access road extends for approximately one-quarter mile before truck traffic reaches a paved public road. There are no paved roads within ¼ mile of the facility. Cronimet Corp is the owner of the roadway, and runs a scrap yard to the northeast of the CRT facility. The repetitive use of the gravel road by truck traffic, some from CRT and mostly from the Cronimet facilities, results in a rough road surface and mechanical breakdown of the roadway materials into fine particles. Cronimet has been requested by CRT and by the City of Chicago to pave the roadway, but they have not responded to the requests. Rainfall or excessive dust control watering creates a paste of mud on the roadway surface that adheres to equipment tires within the facility. Under this condition, trucks leaving the area and traveling onto paved city streets have the potential to track out or drag out dirt and particulate material from the right-of-way on their tires and deposit it on public roadways. Due to the on-site paved conditions and the bumpy, unpaved distance to the public road, any material remaining on trucks when they reach a paved surface is unlikely to include the stored product material from inside the CRT building.

### 4.0 DUST CONTROL PLAN - PART B (3)(E)

The fugitive dust control plan provides a description of the current controls and long-term activities to evaluate and improve fugitive emissions controls for each of the identified sources. Responsibilities for implementation of this plan are outlined in Table 1.

### 4.1 BSM STOCKPILES/LOADING AND UNLOADING

Currently, control of fugitive emissions during storage, loading, and unloading of BSM stockpiles is achieved through operational and source control methods. Unloading transfers from trucks to storage are conducted indoors only, by dumping the load, and pushing the material into a pile. The height of the stockpile is restricted to 12 feet by the physical limits of the loader. Control methods other than wetting the material are currently used throughout the facility to control fugitive dust emissions. Operationally, dust emission potential is controlled by:

- Doing all loading/unloading of trucks or railcars and storage indoors;
- Ensuring the overhead doors at each end of the building are closed during loading/unloading, and when winds are in excess of 25 miles per hour (note that the discontinuance of activity during High Wind Events of 15 miles per hour or greater does not apply to the CRT facility because all activity and storage is located indoors);
- A minimum one-minute wait time after loading or unloading before the doors are opened to allow fugitive dust to settle;
- Limiting the stockpile disturbed area;
- Reducing tumbling of materials being moved;
- Removing material from the stockpile bottom;
- Limiting the vertical drop height of materials;
- Cleaning the floor surface after a stockpile is removed;
- Covering indoor stockpiles of manganese ore and ferro scrap alloys with tarps;
- Watering floor and roadway surfaces as needed; and
- Covering truck trailers with tarps or using enclosed hopper trailers, and utilizing enclosed boxcars for rail shipments.

The leadman and/or operators continuously assess the material condition, moisture content, and type (non-ferroalloy versus ferroalloy) and remove fine materials from the floor surfaces to control the potential for fugitive dust generation. The materials handled by CRT are alloys used in the steel industry. These alloys cannot get wet because of the high potential for risk of explosion and other catastrophic safety concerns when added to molten metal at a steel plant furnace. Therefore, it is impractical to wet the material during loading/unloading as it would render the material unusable for its intended purpose.

The manager performs a daily assessment of prior rainfall, wind speed, temperature, and weather forecast and monitors wind conditions throughout the day to evaluate whether the current operating protocols are appropriate and will be sufficient to control fugitive emissions.

### 4.2 BAGGING

As part of the daily inspections of the bagging area recorded on Table 3: Daily Fugitive Dust Inspection Log, the operation and condition of the bagging process will be reported on the inspection forms. Equipment or operational conditions potentially affecting fugitive dust release will be reported for correction. Additionally, the process is operated indoors with the building doors closed, which in effect, prevents fugitive dust from being carried outside the building due to wind.

### 4.3 SCREENING

Screening is performed inside the building and at least 100 feet from the overhead doors in order to minimize fugitive emissions. Additionally, the drop height is low to further prevent fugitive emissions from occurring. These conditions prevent potential emissions from being carried outside the building. Operation of screening equipment is recorded on Table 3: Daily Fugitive Dust Inspection Log.

### 4.4 ROADWAY DRAG-OUT

Roadway drag-out results from the interactions of unpaved road surfaces, wet-weather, and the inability to prevent material from accumulating on truck wheels or remove it when exiting the facility. While the facility is completely paved throughout, the right of way that provides access to the site is an unpaved gravel road. This could lead to potential dust emissions on-site if it is tracked onto the facility.

Therefore, street sweeping is conducted on all pavement within the property. The current protocol uses a street sweeper to remove accumulated particulates from the plant's paved areas. If sweeping effectiveness is observed to not be sufficient to clean the pavement due to dry conditions, excess traffic, etc., then the water spray system on the sweeper will be employed. The water spray will be used as needed in paved areas during non-freezing weather, when sweeping alone is deemed inadequate. The street sweeping frequency will be two times daily, or once per thirty-five trucks when CRT is open for business, unless the roads are free and clear of BSM that could become airborne. However, sweeping and watering are suspended or augmented as appropriate, based on weather conditions (e.g., raining, freezing, sunny and windy days), truck activity, and roadway conditions. Pavement is also cleaned of residuals when each storage pile is removed for quality control, preventing contamination of material subsequently stored in that bin space.

Each day, on Table 2: Record of Sweeping and Watering, CRT documents the weather conditions, the location of the sweeping and/or applied water, and the sweeping and/or water application frequency on a daily basis. CRT also will document on this log when the sustained wind speeds exceed 25 miles per hour, during which the overhead doors at each end of the building are to remain closed (except when trucks are entering or exiting.) CRT documents on Table 3: Daily Fugitive Dust Inspection Log whether the paved, on-site roads are free and clear of bulk solid material that could become airborne. The record shows the date and time when the street sweeping was performed. CRT believes that the sweeping program has, and will continue to be, an important tool in controlling fugitive dust emissions from the indoor stockpile areas and from the building.

Truck routes within ¼ mile of the perimeter of CRT used to transport materials are shown on Figure 1. This ¼-mile stretch of roadway is owned by Cronimet Corporation. To minimize dust during transport, trucks handling or transporting BSM will adhere to the following measures prior to leaving the facility. These instructions are posted for all drivers at the check-in window:

- Truck drivers will adhere to the posted speed limit within the facility, which is no more than 8 miles per hour.
- Truck drivers will verify that any part of any tractor, trailer, or tire exterior surface is free
  of loose materials.
- Trucks will be visually observed by CRT employees at the weigh scale station for loose material prior to exiting the facility.

CRT has no control over drag-out from the access road. Although the access road is not part of the facility, if excess dust is observed from facility-related traffic, the facility will use a watering truck to water the portion of the roadway traveled only by its traffic.

### 4.5 SPILLED MATERIAL

Areas within the facility not regularly used for storage of material are kept free of any spilled or misplaced material by removing such material by the end of each work shift and using the street sweeper in affected areas.

### 4.6 FACILITY WIDE (GENERAL HOUSEKEEPING AND TRAINING)

CRT has two full-time employees on-site. All employees have inspection, monitoring, and/or response roles in the FDP and all receive annual training in their roles and responsibilities in the plan. Each employee is made aware of the general importance of identifying and controlling fugitive dust emissions throughout the facility, the means to minimize fugitive dust emissions as described in this plan, and is instructed to report observations to his/her immediate supervisor for appropriate corrective action.

### 4.7 STORMWATER MANAGEMENT

The operational areas of the site are asphalt paved. The pavement is sloped to direct stormwater to the center (away from property lines), then to run off to the southwest end, into a grassy retention area. Stormwater is also retained on site by berms for the adjacent KCBX facility that surround CRT's southeast, south, and southwest property lines. Stormwater is otherwise allowed to evaporate from the site. If sedimentation is observed on the pavement that could cause dust, it is cleaned up with the sweeper. No material is stored on the dock edge, on the southern paved area, or within 50 feet of the waterway.

### 4.8 VISIBLE DUST OBSERVATIONS AND QUARTERLY OPACITY TESTING

Visual observation of blowing fugitive dust from the facility will be observed through the use of Environmental Protection Agency Method 22. Logs for this purpose are included in Table 4: Visible Emissions and Opacity Log to be used by trained CRT personnel. Visual observations will be purposely made once per shift and will note their observations at the downwind property boundary. If blowing fugitive dust is noticed by personnel, a Method 22 observation will be performed at that area of the facility and recorded.

The Regulation requires quarterly opacity emission evaluations pursuant to 35 IAC 212.109 (Method 9). An individual trained and certified to evaluate visible emissions will perform quarterly opacity evaluations in accordance with the measurement method specified in Method 9. Opacity reads will be performed at each of the two source types at the facility:

- Roadway; and
- Storage building egress points.

The roadway segment with only trucks travelling to/from CRT will be observed. These opacity read locations are designed to detect the greatest amount of dust emissions. In general, the opacity reads will be performed on clear days or partly cloudy days to provide the appropriate background contrast for Method 9 reads. The regulation requires testing during a range of weather conditions, noted by the CDPH to include variations in temperature and wind conditions.

Quarterly opacity reads will be completed during the second or third week of the last month of each quarter (i.e., March, June, September, and December). The specific day(s) will be selected by the certified reader, whose decision will be in part based on weather conditions, including temperature and wind, and on previous days that opacity reads were taken, in order to choose reading days on which opacity readings will be conducted to occur during a range of weather conditions. For example, during at least one of the quarterly opacity reads, the certified reader will endeavor to select specific day(s) with hourly average wind speeds over 10 mile per hour.

Opacity reads will be conducted if the weather conditions are suitable for compliance with Method 9 requirements. If it is raining, snowing, and/or foggy on the test date such that it would affect the ability to follow the Method 9 procedure, the testing will either be conducted later in the day, or rescheduled to the next available date.

Also in accordance with 35 IAC 212.109, opacity reads of roadways will be performed for a duration of four trucks passing, when possible. Scheduling of the opacity readings will take into account anticipated truck traffic for the day. However, due to the infrequency of multiple truck events, the opacity will be done for available truck traffic on the day of the opacity readings. Three readings for each truck pass will be taken at five-second intervals. The first reading will be at the point of maximum opacity, and the second and third readings shall be made at the same point, with the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway. After four (or number based on the available traffic) trucks have passed, the readings will be averaged and recorded.

### **5.0 IMPLEMENTATION**

The CRT is committed to the continued operation of the facility in accordance with applicable requirements. The plan identifies actions, responsibilities, and schedules aimed at maintaining the commitment relative to fugitive dust emissions. Table 1: Fugitive Dust Control Plan Implementation Activities identifies activities and responsibilities for the performance of this FDP.

### 5.1 RESPONSIBILITIES

The successful implementation of this plan is the responsibility of personnel ranging from equipment operators brought in as needed, to facility management. As shown in Table 1: Fugitive Dust Control Plan Implementation Activities, activities have been assigned to any as-needed-operators, the leadman, and management personnel. Through the distribution of this plan, incorporation of applicable portions into personnel training programs, and ongoing internal dialogue, roles and responsibilities will be defined and reinforced.

### 5.2 TIMING

Facility personnel have been actively engaged in the management of fugitive particulate matter in accordance with applicable regulatory requirements. Table 1: Fugitive Dust Control Plan Implementation Activities itemizes specific schedule commitments that will be achieved and documented through corresponding records.

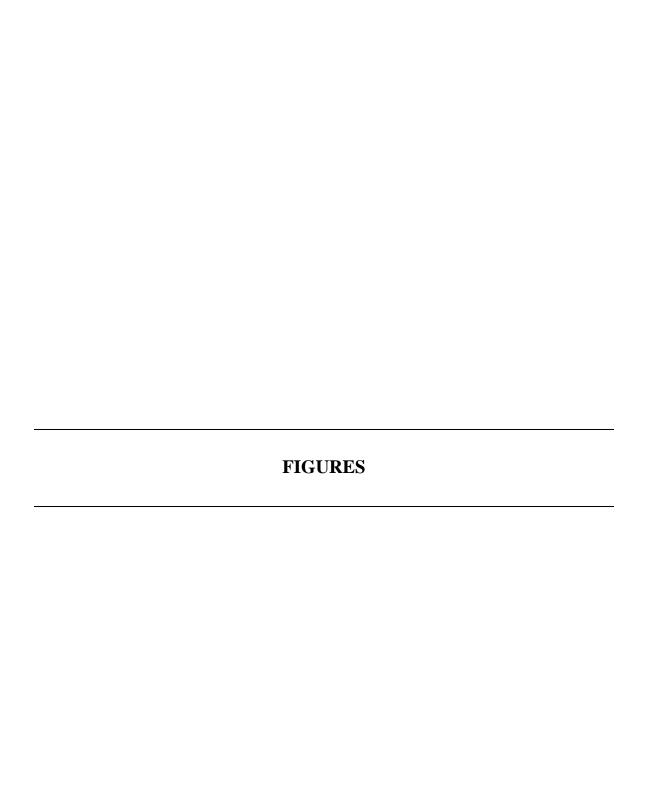
### 5.3 RECORDKEEPING

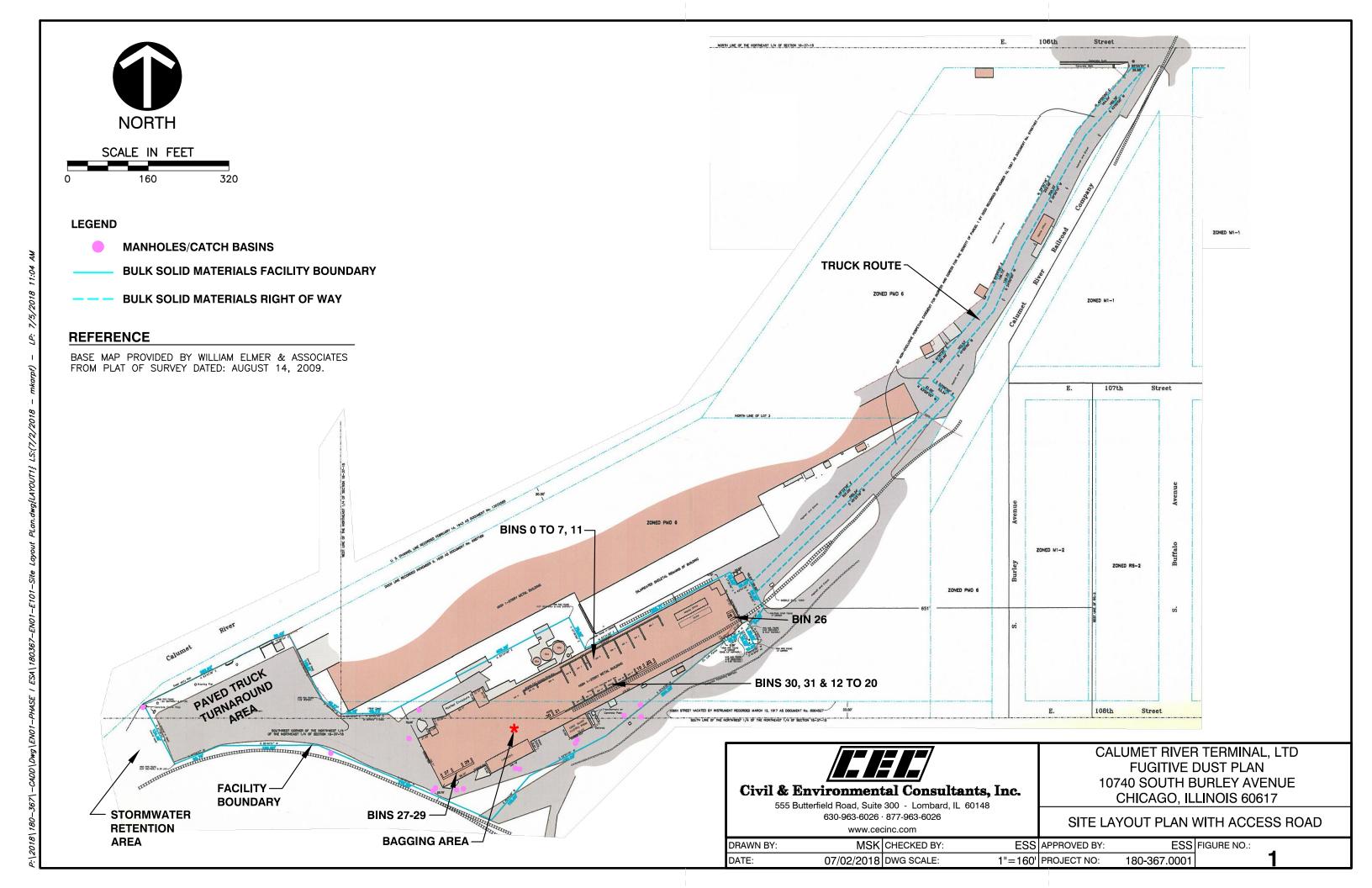
Table 1: Fugitive Dust Control Plan Implementation Activities identifies records that are maintained in accordance with this plan. On a daily basis, the facility will record on Table 2: Record of Sweeping and Watering all street sweeping and watering activities, the number of trucks through the facility, and the weather conditions, including wind speed and direction as documented by the local weather service. This record notes instances when such application is not done for reasons of weather, equipment malfunction, inactivity, etc., and when activities are suspended due to high winds. Observations made during daily inspections are also recorded on the Daily Fugitive Dust Inspection Log, contained in Table 3. All logs are maintained on-site for a minimum of three years.

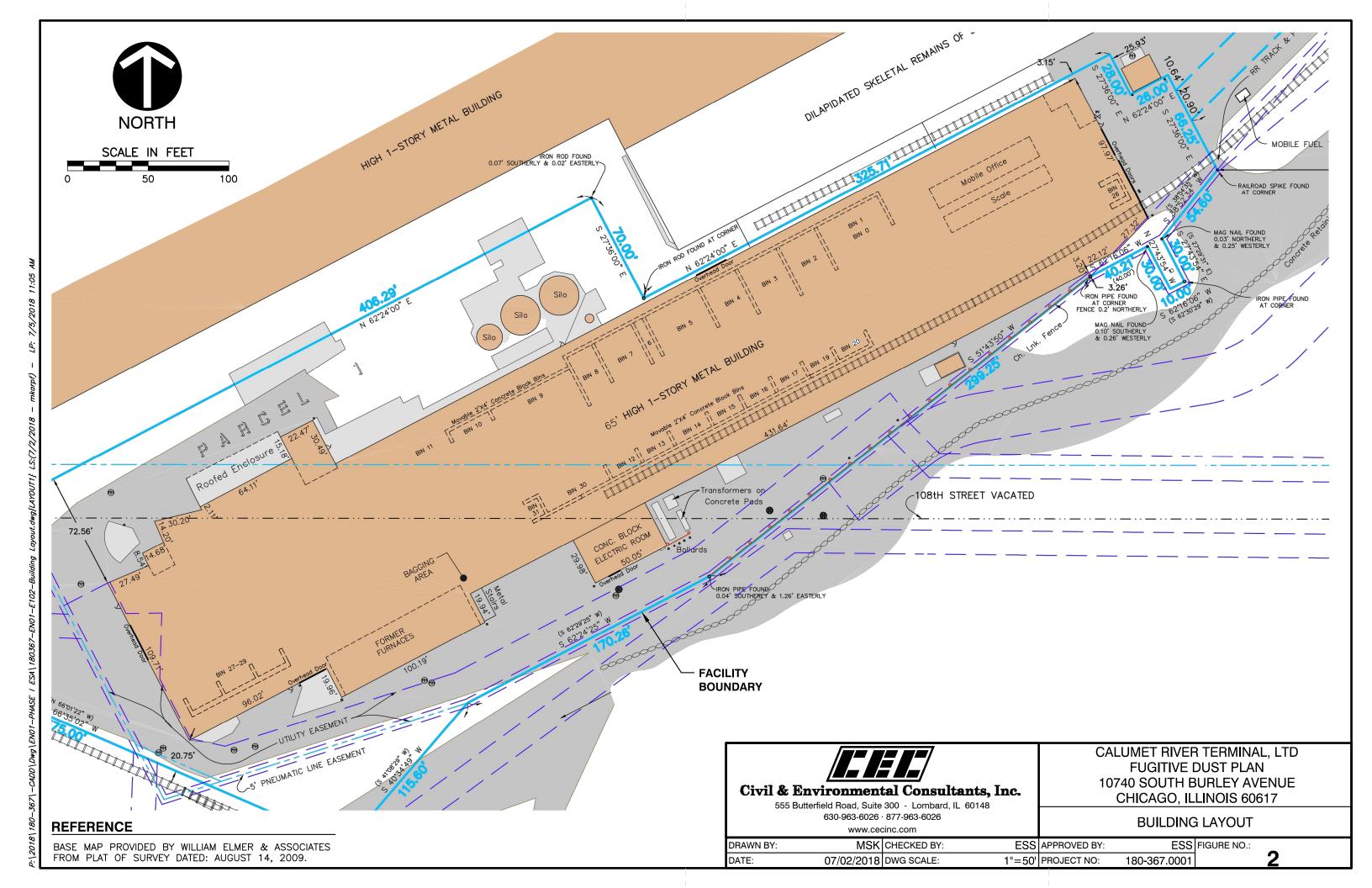
Table 1: Fugitive Dust Control Plan Implementation Activities also shows that, on a quarterly basis, facility environmental personnel prepare a written summary of incidents of visible dusts and actions taken during the prior quarter. The facility maintains its schedule of inspections and maintenance of all dust control equipment. The quarterly report will be submitted to the Illinois Environmental Protection Agency within thirty days of the end of a quarter (for quarters ending March 31, June 30, September 30 and December 31).

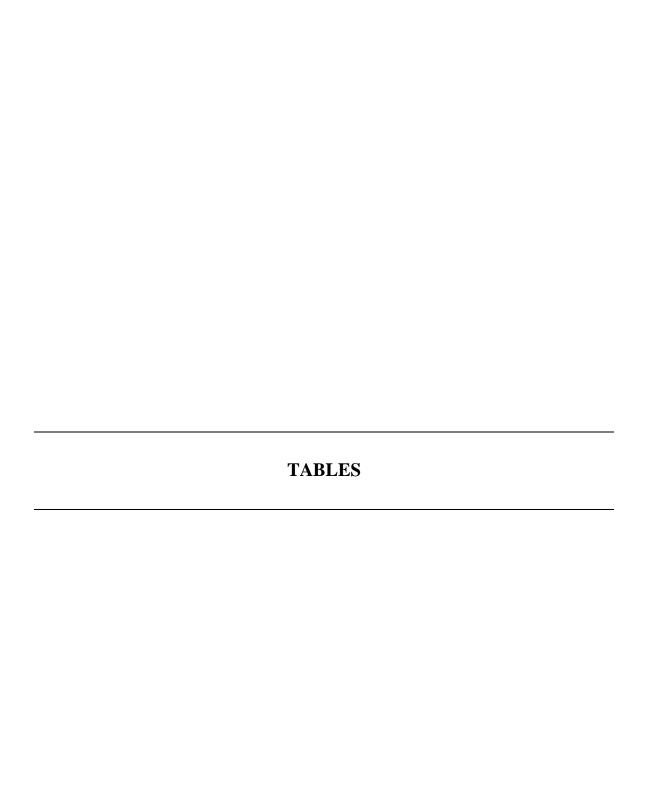
Table 4: Visible Emissions and Opacity Log will be used to record observations of visible emissions in accordance with Method 22 (35 IAC 212.107). Also on a quarterly basis, the facility will perform a visual reading of opacity in accordance with Method 9 (35 IAC 212.109). Records of opacity readings will be maintained on site for a minimum of three years.

On an annual basis, this plan is reviewed and updated as necessary, and is submitted to the Chicago Department of Public Health on or before January 31 of each year. An annual summary of the application of control measures, as may be needed for compliance with the opacity limitations, will be prepared and submitted to the Illinois Environmental Agnecy.











# TABLE 1 FUGITIVE DUST CONTROL PLAN IMPLEMENTATION ACTIVITIES

Source Area	Personnel	Activity	Schedule	Records
	Operators (temporary, as needed)	Assess condition of facility, transfer accumulated fines to piles, notify Leadman if additional sweeping is needed beyond the routine.	Ongoing daily	Daily Inspection Log
	Leadman Manager	Daily inspection, activate additional sweeping if needed. Ensure daily log is completed.	Ongoing daily	Daily Inspection Log
BSM Stockpiles		Ensures the daily recording of sweeping in stockpile area on Table 2 log is completed.	Ongoing daily	Record of Sweeping and Watering
		Conduct visual inspections of piles, record on Table 3 and advise Leadman of additional corrective actions as needed. Ensure daily log is completed.	Ongoing daily	Daily Inspection Log
		Monitor wind speed and precipitation, record on Table 3 and prescribe additional area sweeping or watering, as needed. Ensure daily log is completed.	Ongoing daily	Daily Inspection Log
Roadway Drag- Out/In	Manager	Assess condition of the facility, record on Table 3 and notify Leadman if additional sweeping (in plant) or watering (off site) is needed. Ensure daily log is completed.	Quarterly	Quarterly reports
	I J	Monitor area and implement general housekeeping procedures, as needed. Ensure daily log is completed.	Ongoing daily	Daily Inspection Log
Bagging	Leadman	Daily recording of sweeping and/or watering in crushing and bagging areas on Table 2.	Ongoing daily	Daily Inspection Log
	Manager	Monitor area and coordinate with Leadman for corrective action, as needed. Ensure daily log is completed.	Ongoing daily	Record of Sweeping and Watering
Screening	Leadman	Monitor area and implement general housekeeping procedures, as needed	Ongoing weekly	Daily Inspection Log
Screening		Daily recording of sweeping and/or watering in screening area on Table 2.	Ongoing daily	Daily Inspection Log
		Maintain facility dust control campaign.	Ongoing daily	Record of Sweeping and Watering
		Perform Method 22 visual observation of facility emissions. If visible emissions cross property line, schedule a Method 9 certified opacity inspection.	Quarterly	Daily Inspection Log
		Conduct quarterly (seasonal) evaluation of control plan effectiveness. Submit quarterly reports to IEPA of incidents when dust control measures were not implemented.	Quarterly	Quarterly reports
Facility-Wide (General Housekeeping)	Manager	Update this Fugitive Dust Plan annually, including storage capacities, personnel changes, operational changes, etc. Submit new plan to CDPH, and if significant changes, submit to IEPA.	Annual	Updated Fugitive Dust Plan
		Enable the performance of a Method 9 opacity test of facility emissions by a certified technician	Annual	Method 9 Report
		Submit annual report to IEPA summarizing the application of control measures.	Annual	Annual report
		Conduct routine training with personnel affected by this plan.	Annual	Updated Fugitive Dust Plan
	Leadman	Monitor vehicle speeds for conformance with facility speed limit (8 mph). Ensure daily log is completed.	Annual	Training records.
		Monitor daily truck count, record on Table 3.	Ongoing daily	Daily Inspection Log



SWEEPING:

SWLLFING.						WEATHER	CONDITIONS	3	SWEEP	NG FREQUE	NCY METH	IOD		
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Wind Speed	Doors to Remain Closed Due to High Winds*** (Y/N)		Every 4 hours? (Y/N)	Every 35 trucks (Y/N)	# of Trucks	Total Time of Sweeping (mins)	Comments, use of water spray, reasons for not sweeping, corrective measures, etc.

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Screening area, e = Paved areas outdoors, g = Dock, h = other

WATERING.						WEATHER	CONDITIONS	3						
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Average Wind Speed (mph)	Activity Suspended Due to High Winds (Y/N)	Emissions	Roads already wet (indicate watering or weather)	Water Applied	Quantity of CaCl or salt applied	Number of	Comments, reasons for not watering, corrective measures, etc.

<sup>\*</sup>Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

<sup>\*\*\*</sup>Except when trucks are entering or exiting the building



## TABLE 3 DAILY FUGITIVE DUST INSPECTION LOG CALUMET RIVER TERMINAL, CHICAGO, ILLINOIS

INSPECTION ITEM/	Mo	nday		Tues	day		Wedn	esday		Thurs	day		Frida	v	
CORRECTION ITEM	OK		INITIALS	OK	NOT OK	INITIALS	OK		INITIALS	OK	NOT OK	INITIALS	ОК	NOT OK	INITIALS
BSM STOCKPILE AREAS															
Inspect for BSM accumulation.															
BSM fines collected and recycled by Operator.															
Sufficient moisture is present to suppress dust.															
Operator notified to water equipment runs.															
Visible emissions from building over 5 minute period, recorded on Table 4															
BAGGING MACHINE	GGING MACHINE ACTIVITY? (Y/N)		ACTI	VITY? (Y/N)		ACTI	VITY? (Y/N)		ACTI	VITY? (Y/N)		ACTIV	/ITY? (Y/N)	<b>/</b>	
Inspect container for proper placement in bagging process															
Reset alignment of container.															
Inspect for dust escaping from either machine or container.															
Control flow into container or report to Leadman for correction.															
Inspect ground surface area around bagger for dust accumulation.															
Operator to remove dust or report to supervisor for correction.															
Visible emissions from building during bagging operations recorded on Table 4.															
ROADWAYS	TRUC	CK COUNT		TRU	CK COUNT		TRUCK COUNT		TRUC	CK COUNT		TRUC	K COUNT		
Visually inspect paved areas for accumulation of BSM.															
Use street sweeper to clean the facility.Record use on Table2.															
If sweeping is deemed insufficient and forecast temperature is above 32°F, use street sweeper with water spray to clean the facility.															
Notify Manager if street sweeper is not effective.															
Visually inspect the unpaved roadway entering the facility for dryness/dust.															
If forecast temperature is above 32°F, use water truck to spray for dust control. Record use on Table 2.															
Notify Manager if water truck is not effective.															
SCREENING	ACTI	VITY? (Y/N)		ACTI	VITY? (Y/N)		ACTI	VITY? (Y/N)		ACTI	VITY? (Y/N)		ACTIV	VITY? (Y/N)	
Visible dust generated during screening observed to potentially be carried by wind off site?															
Operator to adjust flow of material to minimize dust generated.															
Visually inspect around and under the screen for the presence of accumulated BSM fines.															
Report to Leadman and Operator to remove fines.															



# TABLE 4 VISIBLE EMISSIONS AND OPACITY LOG CALUMET RIVER TERMINAL, CHICAGO, ILLINOIS

Yea	r.		
150	и.		

Month:				Visible Emission Surv		*** If Method 9
	Initials of	Date	Time	Visible Emissions?	** Corrective Action	applicable
	Observer			Yes/No	within 8 hours?	% Opacity
1						
2						
3						
4						
5						
6						
7						
8						
9						
1						
11						
12						
13						
14						
15						
16 <b>17</b>						
17						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

<sup>\*</sup> Please indicate "N/A" for dates when the facility is not in use.

<sup>\*\*</sup> If visible emissions are observed, perform corrective action within eight hours. If emissions persist, perform a Method 9 within 24 hours of the initial observation.

<sup>\*\*\*</sup> An indivual must be certified to perform a Method 9.





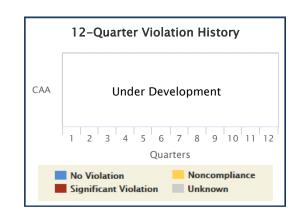
### **Detailed Facility Report**

### **Facility Summary**

### CALUMET RIVER TERMINAL 10740 S BURLEY AVE, CHICAGO, IL 60617 ①

FRS (Facility Registry Service) ID: 110056367701 EPA Region: 05 Latitude: 41.70025 Longitude: -87.54498 Locational Data Source: FRS Industry: Miscellaneous Manufacturing





Statute	Insp (5 Years)	Date of Last Inspection	Compliance Status	Qtrs in NC (Noncompliance) (of 12)	Qtrs in Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
CAA	2	04/27/2016		0	0	1		-	-	-

### **Regulatory Information**

Indian Country: N

Clean Air Act (CAA): Operating Minor (IL000031600GZM)
Clean Water Act (CWA): No Information
Resource Conservation and Recovery Act (RCRA): No Information
Safe Drinking Water Act (SDWA): No Information

### Other Regulatory Reports

Air Emissions Inventory (EIS): 16798111 Greenhouse Gas Emissions (eGGRT): No Information Toxic Releases (TRI): No Information Compliance and Emissions Data Reporting Interface (CEDRI): No Information

### **Facility/System Characteristics**

### Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110056367701					N	41.70025	-87.54498
EIS	CAA	16798111		OPERATING			N		
AIR	CAA	IL000031600GZM	Minor Emissions	Operating	CAASIP		N		

### Facility Address

System	Statute	Identifier	Facility Name	Facility Address
FRS		110056367701	CALUMET RIVER TERMINAL	10740 S BURLEY AVE, CHICAGO, IL 60617
EIS	CAA	16798111	CALUMET RIVER TERMINAL	10740 S BURLEY AVE, CHICAGO, IL 60617
AIR	CAA	IL000031600GZM	CALUMET RIVER TERMINAL	10740 S BURLEY AVE, CHICAGO, IL 60617

### Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Desc
AIR	IL000031600GZM	9999	Nonclassifiable Establishments

### Facility NAICS (North American Industry Classification System)

### Codes

System	Identifier	NAICS Code	NAICS Description
EIS	16798111	339999	All Other Miscellaneous Manufacturing
AIR	IL000031600GZM	339999	All Other Miscellaneous Manufacturing

### **Facility Tribe Information**

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)								
	No	data records returned									

### **Enforcement and Compliance**

### **Compliance Monitoring History (5 years)**

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
CAA	IL000031600GZM	AIR	FCE On-Site	State	04/27/2016	
CAA	IL000031600GZM	AIR	FCE On-Site	State	11/19/2013	

Entries in italics are not considered inspections in official counts.

### **Compliance Summary Data**

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs in NC (Noncompliance) (of 12)	
CAA	IL000031600GZM	No		06/16/2018	0

### Three Year Compliance Status by Quarter

Statute	Pro	gram/Pollutant	/Violation Type		QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
	CAA (Source ID: IL000031600GZM)			07/01-09/30/15	10/01-12/31/15	01/01-03/31/16	04/01-06/30/16	07/01-09/30/16	10/01-12/31/16	01/01-03/31/17	04/01-06/30/17	07/01-09/30/17	10/01-12/31/17	01/01-03/31/18	04/01-06/30/18	
	Facility-Level Status			No Violation												
	HPV History															
	Violation Type	Agency	Programs	Pollutants												

### **Informal Enforcement Actions (5 Years)**

Statute	System	Source ID	Type of Action	Lead Agency	Date
CAA	AIR	IL000031600GZM	Notice of Violation	State	04/22/2014

### Formal Enforcement Actions (5 Years)

Statute Sy	ystem   Law/Sect	on Source ID	Action Type	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
							No data records returns	d					

### **Environmental Conditions**

### Water Quality

Ì	Permit   Combined Sewer   ID   System?	Number of CSO (Combined Sewer Overflow) Outfalls	12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Waterbody Name (ICIS (Integrated   Compliance Information System))	Impaired I Waters	Impaired Causes of Impairment Class (s) by Group(s)	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
ı	ib jyaciii.	Sever Overnow) Guidans	rice (to to (reach reaches) bullionse))	rume (10 to (reach radies) bullbase))	compliance information bystem))	waters	Ciass (3) by Group(3)	species recty insecuriquine species.
ı								
ı				No data records returned				
١								

### Waterbody Designated Uses

Reach Code	Waterbody Name	Exceptional Use	Recreational Use	Aquatic Life Use	Shellfish Use	Beach Closure Within Last Year	Beach Closure Within Last Two Years		
	No data records returned								

### Air Quality

Nonattainment Area?	Pollutant(s)	Applicable Nonattainment Standard(s)
Yes	Ozone	8-Hour Ozone (2008)
No	Lead	
Yes	Particulate Matter	PM-2.5 (1997)
No	Sulfur Dioxide	

### **Pollutants**

Toxics Release Inventory	History of Reported (	Chemicals Released in	Pounds per Vo	ear at Site 🛈
Tomics recrease in tentory	Tristory of responted t	Chemicals recessed in	rounds per r	

	Tovice Releas	e Inventory	Total Releases and	Transfers in Pounds by Chemical	and	I Vaar (i)			
				No data records returned					
1									
ī	TRI Facility ID Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	$\neg$	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Releases

ı	Chemical Name
	No data records returned

### **Demographic Profile**

### Demographic Profile of Surrounding Area (3 Miles)

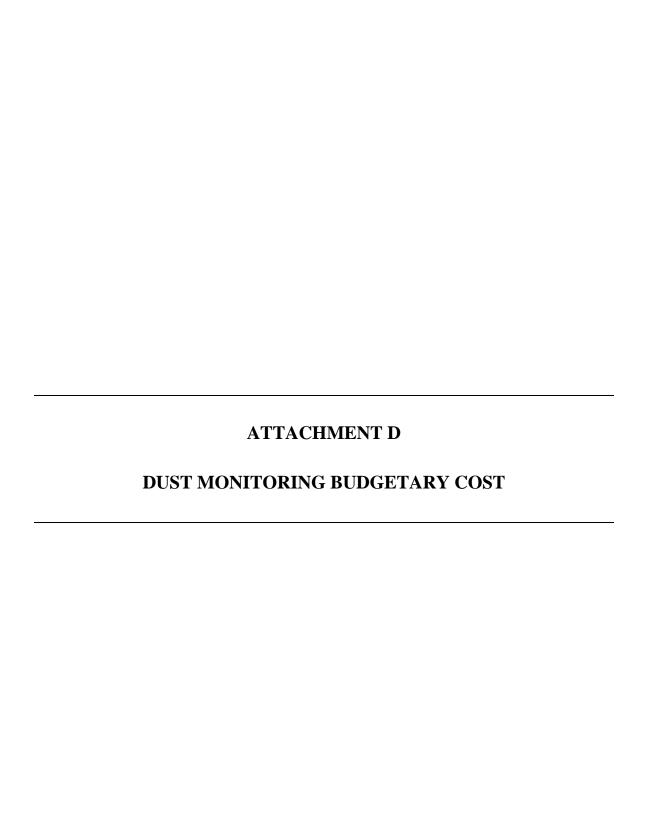
This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

Radius of Area:	3	Land Area:	83%	Households in Area:	27,670
Center Latitude:	41.70025	Water Area:	17%	Housing Units in Area:	31,331
Center Longitude:	-87.54614	Population Density:	3,806/sq.mi.	Households on Public Assistance:	864
Total Persons:	80,248	Percent Minority:	85%	Persons Below Poverty Level:	41,131

Race Breakdown	Persons (%)	Age Breakdown	Persons (%)
White:	27,793 (35%)	Child 5 years and younger:	5,726 (7%)
African-American:	34,102 (43%)	Minors 17 years and younger:	22,143 (28%)
Hispanic-Origin:	33,879 (42%)	Adults 18 years and older:	58,106 (72%)
Asian/Pacific Islander:	267 (0%)	Seniors 65 years and older:	11,222 (14%)
American Indian:	564 (1%)		
Other/Multiracial:	17,522 (22%)		

Persons (%)	Income Breakdown	Households (%)
7,203 (13.5%)	Less than \$15,000:	4,976 (17.38%)
5,989 (11.23%)	\$15,000 - \$25,000:	3,845 (13.43%)
17,082 (32.02%)	\$25,000 - \$50,000:	7,969 (27.83%)
15,215 (28.52%)	\$50,000 - \$75,000:	5,748 (20.08%)
	7,203 (13.5%) 5,989 (11.23%) 17,082 (32.02%)	7,203 (13.5%) Less than \$15,000: 5,989 (11.23%) \$15,000 - \$25,000: 17,082 (32.02%) \$25,000 - \$50,000:

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown	Households (%)
B.S./B.A. or More:	7,853 (14.72%)	Greater than \$75,000:	6,094 (21.28%)



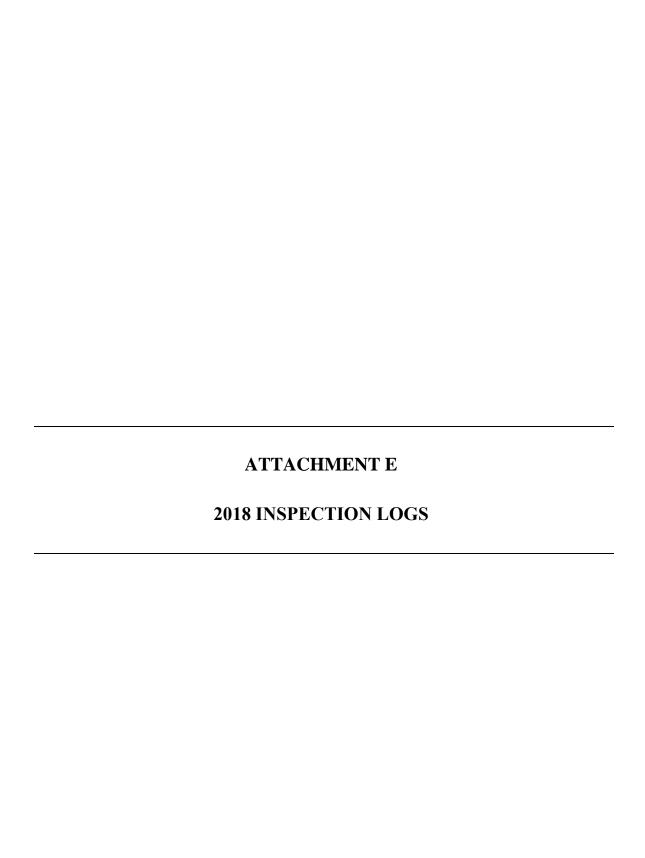


### DUST MONITORNG BUDGETARY COST ANNUAL OPERATION

Task	Unit Rate	Estimated Days and Units	Es	timated Cost
<u>TASK 1</u> Quality Assurance Project Plan	\$ 6,750.00	Lump Sum	\$	6,750.00
<u>TASK 2</u> Project Mobilization				
Labor	\$ 6,000.00	Lump Sum	\$	6,000.00
10-meter Met Station w/solar	\$ 8,000.00	1	\$	8,000.00
Met Station Installation	\$ 3,000.00	1	\$	3,000.00
Battery powered dust monitoring station [1]	\$ 22,000.00	4	\$	88,000.00
Bluetooth Telemery to Local PC		Included		
	Total Cap	itol Cost =	\$	111,750.00
TASK 3				
Perimeter Monitoring Station Operation				
Expenses (Monitor parts/supplies)	\$ 50.00	12	\$	600.00
TASK 4				
Data Management				
Labor (Assumes 8 hrs/month at \$105/hr)	\$ 840.00	12	\$	10,080.00
TASK 5				
Annual Summary Report				
Labor <sup>[2]</sup>	\$ 8,500.00	Lump Sum	\$	8,500.00
Expenses	\$ 500.00	Lump Sum	\$	500.00
	Total Annual O	perating Cost =	\$	19,680.00

### Notes:

- [1] Option to lease for \$1,400/month/unit; 4 units for \$5,600/month
- [2] Reporting costs based on one year of operation and data collection



### SWEEPING:

					WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	METH	OD				
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	Every 4 hours? (Y/N)		ks	Sus Due	ctivity pended to High ds (Y/N)	Total Time of Sweeping (mins)	Comments, use of water spray, reasons for not sweeping, corrective measures, etc.
3-26-18	7:30 A		C.S.		33	BUNNY	Y	. y	N)	O	N	\$	Ö	NO ACTIVITY
3-26-18	2:00 8	_	C S	_	45	cloudy	Ý	ίγ	N	6	N	210	0	No ACTIVITY
3-27-18	i		c s	_	50	RAIN J SHOWZA	у	/ V	N	0	Ν	5340	0	NO ACTIVITY
3-27-18	12:55P	_	CS	_	51	PART	У	/ \/	1   1		Ν	wuw	O	ITRUCK
3-28-18	7.20 A	1	C'S	{	39	Cloudy	У	/ \/	NO	,	N	CALM	0	No Activity
3-28-18	1:30 P	2:15	MF	AB	51	PART	V	γ 	NO	,	Ŋ	543	45	,
3-29-18	i i		es	_	40	SHOWER	Ý	V	N	0	N	~4	0	NO ACTIVITY
3-29-18	11:35A	_	cs	-		OVERCAST	/ \/	γ̈́	N	2	N	שצ	0	NO ACTIVITY
3-30-18	7.30 AM	_	C5			CLOUDS	V	` ;	NO	)	N	N N E	0	NO ACTIVITY
3-30-18	2:15 pm	3:00	MF	BE	45	PART	ا ا	l lÍ	NO	)	N		45	C
						1		4	•					
							·			$\neg \uparrow$		1		

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

					WEATH	IER CONDITIONS	<b>3</b>				
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)		Number of Passes	Comments, reasons for not watering, corrective measures, etc.
3-26-18	7:20	ſ	65		33	SUN WY DRY	DRY	0	0	0	NO ACTIVITA
3-26-18	2 pm	_	es	В	45	CLOUDY	DRY/OWET	0	0	0	NO A ativity (B-KCBX 12:30)
3-27-18	7:15 A		C5	<u> </u>	50	RAIN	WE T	O	O	0	NO ACTIVITY
3-27-18	12:55	_	es		51	PART	WET	0	0	O	1 TRUCK
3-28-18	7:20		es	_	39	CLORDI	WET	0	0	0	NO ACTIVITY
3-28-18	1:30	_	CS	+	51	PART '	WET	O	0	0	NO KETIVITY
3-29-18			cs	_	40	SHOWER		0	0	0	NO ACTIVITY
3-29-18	11:35	_	cs	_		DIOERCAST		O	0	0	NO ACTIVITY
3-30-18	7:30		CS		34	0101123 54.N	WET	0	0	0	NO ACTIVITY
3-30-18	2:15	_	cs		45	PART	we t	0	0	0	NO ACTIVITY
						(				<u>-</u>	)

<sup>\*</sup>Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

### SWEEPING:

					WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	METH	OD			
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions	Pavement clear of dust matter?** (Y/N)			ks	Activity Suspended Due to High Winds (Y/N	Sweeping	Comments, use of water spray, reasons for not sweeping, corrective measures, etc.
3-19-18	7:30 AM		CE		38	CLOUDS SUN DRY	N	V	N	0	NNS	O	NO ACTIVITY - Emperger
3-19-18	2:20 PM		Cs	.—	44	CLOUDS/SUN	, <u> </u>	Ŋ	N	0	NINE	0	NO ACTIVITY - NO EMPLOYEE
3-20-18	7:35 AM	_	CS		30	CLUUDS/ SUN	2	4	NG		a DE	6	NO ACTIVITY - NO EMPLOYEE >
3-20-18	1:45PM		CS		35	CLOURS/SUN	(S)	4	NO		NINE	0	No Activity - No Employed
3-21-18	1:30 AM	-	CS		31	e vous 15an	72	Ų	N	)	NNIO	O	No Activity
3-21-18	12:30	1:00	M.F	B C	37	CLOUDE SUN	У	V	NC	2	NNA	30	
3-22-18	7.30 Am	8:00	MF	BF	30	ZUNNY	/ V	V	NO	)	N NW	30	
3-22-18	2:00 Pm	245	MF	AB	43	SUNNY	/ \/	12	NO	) [	NIZ	45	
3-23-18	7:15AM		CS		3 <u>a</u>	SUNNUBRY	/ V	ј Ч	NO		NNE	Ø ¬	
3-23-18	3:00 PM		05		43	SUNCLOUS	, V	v	1) 0	)	N 2		C745-17
							,	1	, -				
				704									

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

### **WATERING:**

	·				WEATH	ER CONDITIONS	<u> </u>				
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)	Quantity of CaCl or salt applied	Number of Passes	Comments, reasons for not watering, corrective measures, etc.
3-19-18	7:30 AM		CS	<del>-</del>	38	DRY 18 UN	OTL	0	0	G	NO ACTIVITY - NO EMPLOYEE
3-19-18	2120 pm	_	cs		44	Crows/sun	DRY	0	0	0	NO ACTIVITY - NO EMPLOYEE
3-20-18	7:35 AM		C5				OR	0	0	0	NO ACTIVITY - NO EMPLOYEE
3-20-18			C.S			curs/sun	OL	0	0	0	NO ACTIVITY - NO EMPLOYEE
3-21-18		_	೭೨		31	cumos/sun	04	O	0	0	NO ACTIVITY - BELOW FEEEZING
3-21-18	NOEN	_	C.S		37	cours sur	ry —	$\mathcal{O}$	0	0	NO ACTIVITY
3-22-18	7: JAM	<u> </u>	QS.		20	JUNNY DRY	DRY	O	0	0	BELOW FREEZING - NO ACTIVITY
3-12-18	2.30pm		CS		43	SUNNY	bry	0	0	0	No Activity
3-23-18	7:15 Am	-	ds		32	SUNNY	DRY	0	0	0	No ACTIVITY
3-23-18			0s	_	43	DRV CLOUS	DRY	0	0	0	NO ACTIVITY GUST 17 NE
-						7	,				

\*Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required

### LE 3

### RECORD OF SWEEPING AND WATERING CALUMET RIVER TERMINAL, CHICAGO, ILLINOIS

### SWEEPING:

SWEEPING	•				WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	MET	HOD	1			T
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	Every 4 hours? (Y/N)	tru	•	Su: Due	ctivity spended to High nds (Y/N)		Comments, use of water spray, reasons for not sweeping, corrective measures, etc.
3-12-18				В	32	DRIZZLING CLOUDY	80	У	N	0	N	WAW 7	40	
3-12-18			C.S		41	CLOUDY	v	<i>y</i>	N	0	N_	WWW 16	O _	HIGH WINDS - NO ACTIVITY
3-13-18		_	C5		28	cloubs	N N	v	N	0	N	NW		
3-13-18	11:30	12:00	ИF	AB	35		4	$I_{y}$	Ŋ	1	N	N 13	<u>30</u>	
3-14-18			ى ج		24	Some Cliuds	4	Ý	N	0	N		0	
3-14-18	12:30 PM	_	cs		34	PARTY SUDNY	<u> </u>	ý	Ŋ	0	Ŋ	10	. 0	
3-15-18	7:15		CS		31	SUNNY	Ń	ή	N	Û	N	سر الم	<u> </u>	Mu Move Out TO IN
2-15-18	1	3:05	MF	В	43	curss	N	Ý	N	0	N	12	20	
3-16-18	T	_	es		28	ciousy	N	<b>y</b>	Ŋ	0	N	NE 10	0	
3-16-18	2:30	3,00	Mi-	A B	36	Carros	N	Ý	N	1		200	30_	
											_			
											Ī			

\*Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

### WATERING:

					WEATH	IER CONDITIONS					
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)		Number of Passes	Comments, reasons for not watering, corrective measures, etc.
3-12-18	7:20AM		CS		32	CLUU DY	WET	O	0	0	
3-12-18	11:30		α5		41	CLOUDY	Wer	0	0	0	AM RAIN LIGHT WNEUK
3-13-18			C5		28	curs	wer_	O	0	Ö	BELOW FREEZING
3-13-18			CS		35	FLURRIES	Moist	0	0	0	
3-14-18			CS		24	Some Couds	DAMP	0	0	0	BELOW FREEZING
3-14-18			Cs		34	PARTLY		٥	0	0	NO TRUCKS/ACTIVITY
3-15-18			CS		31	ا ' ا		0	0	0	BELOON FREEZING-NOTPUCKS
3-15-18		_	cs		42	Sunny Cicuds Sun i	sry	Ö	0	0	NO TRUCK ACTIVITY
3-16-18		_	CS		28	Cloudy	DRY	0	0	0	BELOW FREEZING
3-16-18		! 1	CS		36	0 ( ) ( ) ( ) ( ) ( )	DRY	0	0	0	NO ACTIVITY
							1			_	J

\*Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

### SWEEPING:

	·				WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	MET	HOD	1			
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	1	tre	•	Su	ctivity spended to High nds (Y/N)		Comments, use of water spray, reasons fo not sweeping, corrective measures, etc.
3-5-18	7. KAM	8:00	MF	В	31	MOSTLY CLOCKDY	N	ý	N	0	N	1858 1 <b>3</b>	60	
3-5-18	2:00PM	3,00p	MF	В	43	CLOUDY	7	4	N	0	1	18	60	
3-6-18	7:20 Pm	820	NF	В	33	Crowsy '	N	4	Ŋ	0	N	35E	60	
3-6-18			MF	ABCDE		CUNSOFT SLEET/FLUPA	ies y	V	2	1	N	NE	60	
3-7-18		_	CS		77	CLOUDS/SUN	v /	/ V	N	0	N	N3 13	0	
3-7-18	a:00PM	230	HF	B	32	CLOUDY KUN	y Y	y	N	1	N	NW 13	30	
3-8-18	7:30 AM		MF	3	24	ciouds/sun	γ Y	<u>/</u>	M	0	N	λi ω 10	30	
3-8-18	NOON	}	CS		ンイー	croups/sun	V	/ Y	N	0	Ŋ	N 100	0	NO ACTIVITY
3-9-18	7:10AM	7:40	MF	В	26	Cioub3/ Sun	4	y V	N	0	٨J	W.V.W 5	30	, –
3-9-18			CS		32	CLOUDS/SUN	V	1 1	N	d	N	N W 5	0	
							1	(						

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

WATERING					WEATH	IER CONDITIONS					
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)	Quantity of CaCl or salt applied	Number of Passes	Comments, reasons for not watering, corrective measures, etc.
3-5-18	7:15Am	-	CS		31	MOSTLY CLOUDY	WET-PAIN	0	0	0	
3-5-18	2:00 PM	-	C5	-	43		WET	0	O	0	
3-6-18	7:20 AM	1	CS		33		WET-RAIN	0	0	0	
3-06-18	12:5000	1	ی	_	41	5 285/BNOW	=LUKRIES	0	0	0	
3-7-18			CS	<del></del>	27	PART CLUMBA PART SUNNY	Pubbles/SNOW	0	0	0	BELOW FREEZING
3-7-18	21 00 PM		CS		32	MOSTEY CLOSE	H PULDIES	0	0	0	
3-8-18	7:30 AM		CS	<b></b>	24	San	WET/Pasous		0	Ç	BELOWFREEZINE
3-8-18	NOON		cs		33	C cours Sun	WET	0	0	0	WET - NO ACTIVITY
3-9-18	7:10 AM	1	C.5	_	26		WET	O	0	0	11 /1 BELOW FREEZINE
3-9-18	11:15 Am	~	Cs	_	32	Ciouss 1		0	0	0	11 " "

<sup>\*</sup>Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

### . LE 3 RECORD OF SWEEPING AND WATERING

### RECORD OF SWEEPING AND WATERING CALUMET RIVER TERMINAL, CHICAGO, ILLINOIS

### SWEEPING:

WEATHER CONDITIONS SWEEPING FREQUENCY METHOD

			· .				31122, 1143, 112							
Date	Start Time			Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	Every 4 hours? (Y/N)	tru		Sus	ctivity spended to High ids (Y/N)		Comments, use of water spray, reasons for not sweeping, corrective measures, etc.
2-26-18	7:30 A	8:30	(MB) CS	BCE	34	Sunny	7	У	N	0	N	\$ 2	60	
2-26-18	Neon	1:00	MF	BCE	48	Survy	ν	¥	Ń	2	N		30	
2-27-18		8,00	MD) CS	BCE	41	SUNNY	N	γ	N	0	N	53w	45	
2-27-18	11:45AM	No 0 12 12:30-1:32	MF	BCE	60	Sucolog	N	ý	N	i	V	5 is	60	Eduin
2-28-18	7:15 Am	7145	NOS	BC	51	CLUMBIT	ير اير	V	N	0	N	55 W	<b>3</b> 0	
2-28-18	2:00 PM	2,30	NF	BE	46	CLOUDY	J		N	0	N	NNW 8	30	
03-01-18	7:10 AM	9:10	MF	B	39	RAIN	N	V	N	Ō	N	NNE	60	
3-1-18	2:00 PM	a:45	MF	B	37	CLONDY	N	Ý l	N	2_	N	N	45	
3-2-18	7:15 AM		CS	<u> </u>	33	SUNNY	У		n l		N	اند ند ند	0	
3-2-18	1.15 pm	2:00	MF		42	MISTRY	N	l Vj	N	0	N'	6	45	
								1						

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

### WATERING:

WEATHER CONDITIONS

Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Water Applied	Quantity of CaCl or salt applied	Number of Passes	Comments, reasons for not watering, corrective measures, etc.
2-26-18	7:30 AM	_	OS	•	34	SUNDY	WET Audilia	<u> </u>	0	0	WET FROM RAIN/MELTED SNOW
2-26-18		}	Cs		48	Sunny	WET/Puddles	, 0	0	0	1 1
22718	7:15 AM		CS		41	SUNNY	WET/MUDBY	0	0	0	11 /1 /1
2-27-18	11:45 AN		CS.		60	SUNNY	WETMUSSY	· ~	0	0	11 (1 /1
2-28-18	7:15 Am	)	ÜS		51	MOSTRY	WET	$\circ$	IJ	0	<i>)</i> /
2-28-18	2100 pm		CS		46	Ciousy	Ŵ8T	0	0	0	
3-1-18	7:10 AM	~	C5		39	RAIN	WET	0	0	0	RAIN
3-1-18	2:00Pm		CS		37	Chousy	WET	0	0	0	
3-2-18	7:15 Am		Q S	_	<b>3</b> 3	Sunny	WET	0	0	0	
3-2-18	1:15pm		Cs		시고	<b>ルたくナフル</b>	WET	0	0	0	
						/					

<sup>\*</sup>Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

### SWEEPING:

					WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	METHOD	<u> </u>		
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	Every 4 hours? (Y/N)		Activity Suspended Due to High Winds (Y/N)	Sweeping	Comments, use of water spray, reasons for not sweeping, corrective measures, etc.
2-19-18	7:10 mm	1-	CS		41	RAIN SOUSY	y	y	NO	NS	0	FGG IN WAREHOUSE
2-19-18	11:15AA	11:50 AM	AF	BCE	46	RAIN/FOG	Ν	ý	N 2	N 53 E	35	FOG IN WAREHOUSE
2-20-18	7:05 An	7:35	WE	CE	58	RAIN/FOG	7	v .	NO	N 500	30	FOG IN WAREHOUSE WET
220-18	11:30AM		CS		60	RAIN FOG	4	4 Y	N 3	N 17	0	
	4:00 pm	_	CS		23	Cloudy	ų	Ý	NO	M HYW	0	
2-21-18	2.05pm		C.S		35	Clousy	о Ч	\ <u>'</u>	NI	10 NNE	0	
2-22-18	1:15AM	7:35	MF	BC	32	Cloudy	Ĭ	<u>/</u>	NO		20	
2-22-18	1.00 PM	1:30 pm	MES.	BC	39	CLOUDS	ý	y Y	NI	17	30	
2-23-18			CS		42	CLOUDY DRIZZA	٤V	<u>\</u>	NO	N.00	0	
2-23-18	1:30 PM	2:00	~B5	BC	4	Crousy	√	<u> </u>	N 3	3 15	30	
					- '		1	1				
			1									

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

WAJERING	·				WEATH	ER CONDITIONS					
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)	Quantity of CaCl or salt applied	Number of Passes	Comments, reasons for not watering, corrective measures, etc.
2-19-18	7,10 m	<u>-</u>	Cs		41	RAIN FOG	WET-RAIN	0	0	0	RAIN / FOG
2-19-18	11:15Am		ک		46	BAIN FOE	WET-RAIN	0	0	0	RAIN/FOG
2-20-18	7:05 AM	į	CS		58	RAIN FOG	STANDING	0	0	0	RAIN/FGG
2-20-18	11:30 AM	1	Cs		60	RAIN FOG	WET-RAIN	0	0	0	RAIN
2-21-18	i i	· · · · · · · · · · · · · · · · · · ·	CS		ఎ3	Clumbil	WET STAUSING	0	0	0	FLOODED EASEMENT
2-21-18			C S		35	Clonisy	WET WATER		0	0	ELOUASA EASEMENT
2-22-18	1:15 Am		CS	_	32	CLOUDE	WET WATER	0	0	0	
2-22-18			05		39	CLOUDY	WET	0	0	0	
2-23-18	1.20 AM	ــــ	05		42	Ciousy DR122	4)ET	0	0	0	
2-23-18			CS		41	Ciousy	WET	0	0	0	

<sup>\*</sup>Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

### SWEEPING:

					WEATH	IER CONDITIONS	SWEEPING FRE	QUENCY	MET	HOD						
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	Every 4 hours? (Y/N)	tr		Sus Due	ctivity spended to High ds (Y/N)				r spray, reasons for ve measures, etc.
2-12-18	7:00 AM		CS		11	Sunny	V	V	N	Ø	N	58	0	CLEAN,		
2-12-18	11:00 AM		Cs		23	Sunny Chass	¥	y V	N	4	N	N	0	14	11	
2-13-18	7.20AM		Cs		17	Mostrie Cionay	ý	Ţ	N		N	EN &	0	11	11	
2-13-18	11:25AM		CS		27	CLUMBY	Ý	<i>y</i>	N	a	N	55E	$\circ$	11	7)	(+ TRuck)
2-14-18	7.30 Am		Cs	_	30	403729 SUNNU	V	, Y	N	0	N	5800	0	ħ		
2-14-18	11:45 AM		05	_	42	PARTLY   SUNNY	/	/ V	N	1	N	512	0	1 (		(1 TRUCK)
2-15-18	7:10 Am		QS		39	FOG/CLDUST DRIZZ4.	₹	<i>V</i>	N	0	N	55:W	Ö	CLENN		
2-15-18	11:00 AM	11.45	MF	ABCDE	43	F06! 1	Ń	<b>*</b>	И	11	N	υω Œ	45			
2-16-18	7.10 AM		cs		29	Cloudy	y	· ·	N	0	N	Na				
2-16-18			CS		3 <b>5</b>	OUERONST	N	<i>y</i>	1	12	N			IMAN -	INBOUNT	>3, MEONAURAL
								7								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

					WEAT	HER CONDITIONS	<b>.</b>				
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)		Number of Passes	Comments, reasons for not watering, corrective measures, etc.
2-12-18	7:00 Am	_	es		11	Surviv	E018280 8"	Ó	O	Ò	SNOW (WEEKEND), BELOW FREEZING
2-12-18	11:00 AM	,	CS	<u></u>	$\alpha$	SUNDY PASSING COURS	COVERED	0	0	0	BELOW FREEZING, SNOW COVERED
2-13-18			CS		17	ciousy	trozen sacu COVEREU	0	0	0	BELOW FREEZING, "
2-13-98		-	es		27	County	SNOW SNOW	0	٥	0	BELOW FREEZING "
2-14-18		_	0.5	<del></del>	30	MOSTZY	SHOW BREW	0	0	0	BELOW FREEZING, " "
2-14-18	11:45 Am	_	· C 5		42	SUNNY	WET SNOW	0	0	O	WET-MELTING SNOW
2-15-18	7:10 AM	-	C.5		39	FOG/CLOUDY DRIZZY	STANDING WAT	: E	0	0	WET
2-15-18	1100 Am		CS		43	Fos \	WET	0	0	0	WET-HEAUY FOG
2-16-18	7:10 Am		CS		_95	Claury	WET	0	0	0	WET-Pubbles
2-16-18	11:30		CS		34	DEROAST	WET	0	0	0	n 7
	_										
*	Locations: a =	access road	is, b = south	h side access road, c = other							······································

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

### SWEEPING:

					WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	METH	IOD	<u> </u>			
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	Every 4 hours? (Y/N)	4	cks	Sus	ctivity pended to High ds (Y/N)	Total Time of Sweeping (mins)	Comments, use of water spray, reasons for not sweeping, corrective measures, etc.
02-5-18	7:15 A	ſ	<b>6</b> 5		-i	MUSTLY SUMMY	У	у	N	1	N	7	0	٧
1		12:05	ME	ABC	5	CLOUDS	الم الم	ý	N	Ó	N	su 5	30	
2-6-18	7:15 Am		CS		8	CLOUD/SNEW	N	ý	N	0	N	$\omega_{\mathcal{H}}$	0	(AM-5NOW CLEAN LEA)
2-6-18	2:00 pm	2:30	MF	ABC	21	500 + CLOUD	N	<i>y</i>	N	1		NZ	30	
2-7-18	7:30 Am		CS		16	LIGHT SNOW	y	ly	N	Ô	N	ana	<del></del>	(AM-SNOW CLEANLED)
2-7-18	11:30 AM		0S		19	SNOW	ý	У	2	١	2	12	0	
2-8-18	7:15 AM	_	es .		10	CLOUPY	N	У	12	Ù	Ń	eus w	0	
2-8-18	12:30PM	2:00 PM	NF	ABCLE	19	MOSTLY CLOUDY	W	Y	N	0	N	พรพ 10	90	(+ HAND SWEEP, BINS,+)
29-18	7:30 AM		CS		25	LIGHT SNOW	Ý	y .	N	0	N	NNE	٥	MILEAN NO ACTIVITY
2-9-18	NOON		CS		26	รพอผ	<u> </u>	1	N		N	SYN	0	CLEAN, NO ACTIVITY
							/	′						

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

	•				WEATH	IER CONDITIONS					
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)	Quantity of CaCl or salt applied	Number of Passes	Comments, reasons for not watering, corrective measures, etc.
2-5-18	7:15 AM	_	Cs		-1	MUSTEY	50000 W 6240	0		0	Below Freezine
2-5:-18	1		as		5	CLULAS	50000 WET	0	٠	0	BELOW FREEZINE
2-10-18	7:15 Am		65		8	CLOWDS	SNOW	0		0	BELOW FREEZING SNOW OVERNIGHT
2-13-18	)		0.5		21	خ د ان عاڪ و هدان د ع	500 5559	0		0	BELOW FREEZING
2-7-18	7:30 Am	_	CS		16	CLOUDY LITE SNOW	SNOW	0	_	0	BELOW FREEZING SNOW OVERNIGH
2-7-18	11:30 Am	)	CS		19	LI CAT DOW	500 848 84	0		0	BELOW FREEZING
2-8-18	7:15 AM	)	CS		10	CLGUDY	57000 2ACKS	$\mathcal{C}$	~	0	BELOWFREEZING
	12.300m		cs		19	CLOUPY	CON ERRAD	0		Ò	BELOW FREEZING
2-9-18	7:30 AM		CS		25	LIGHT	SNOW	O	0	0	BSIOW FREEWING SNOW!
2-9-18	NOON		CS		26	SNOW	5NO W	0	d	0	BELOW FREEZING / SNOW!

<sup>\*</sup>Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

0

3

30

60

INSIDE

CLEA.)

### SWEEPING:

Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	1	-	35 S s D	Activity uspended ue to High inds (Y/N)	Sweeping	Comments, use of water spray, reasons for not sweeping, corrective measures, etc.
1-29-18	8:00 M		MF		26	WERCAST WIGHTSUCK	V	y	NO	N	NE / g	0	NO ACTIVITY (WIND GUSTO)
1-29-18	12:30P	n —	NF		25	LIENT SNOW OVEREAST	7	V	NO	N	NW17	0	NO ACTIVITY (WINDY
1-30-18	8.30A		es		18	PARTLY SUN	y	V	N C	V)	WH	0	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
1-30-18	NOON	_	CS		26	MOSTLY	V	/ V	N 3		WSW	0	
1-31-18	7: 20 AM		CS.	<b>.</b>	34	SUN WIND	<i>y</i>	V	N Q	) 1	53.0	0	* W, W 5
1-31-18	11,30 Pag	NOON	ME	BEC	42	MOSTEY S CLEULDS WINDY	Ď.	V	NO	5 5	E18	30	

WEATHER CONDITIONS SWEEPING FREQUENCY METHOD

CUCUDS

BUN

### WATERING:

2-2-18

2-2-18

8.00 AM

NOON

			,		WEATH	IER CONDITIONS	}				
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)		Number of Passes	Comments, reasons for not watering, corrective measures, etc.
1-29-18	8:00 AM		MF		26	NEAT SNEL	i WET	0	0	0	EIGHT SNOW, WINDS Y
1-29-18	12:30 PM		MF		25	NERDAST	WET	O	0	0	LIGHT SNOW WILLSY
1-30-18	8.30	_	C.S		18	PARLTY SUNNY	WET	0	G	0	BELOW FREEZING
1-30-18	N00 N		03		26	MOSTLY	wet	0	0	0	BELOW FREEZING
1-31-18	7-20 Am		<u>as</u>		<b>ゴ</b> サ	CLULLAS / SUN/CLUAS	PARTLY	0	0	0	HIGH WINDS (SSW 17) GUSTY
1-31-18	11.30A		cs	-	42	MOSTLY	PARTIALLY WET	O	0	0	NIGH WINDS (E18) NO ACTIVITY
2-1-18	7:20	_	9		24	Sul	PARTIALLY FROZED WED	- 0	0	0	BELOW FREEZING - NO TRUCKS
2-1-18	11736		<b>Q</b> S		22	CLOURS	DRY	0	0		BELOW FREEZING - NO TRUCKS
2-2-18	8:00 am	_	CS		7	Cours	LIGHT	0	0	0	BELOW TEREZING - NO ACTIVITY
2-2-18	NOON	-	CS		15	PARTLY SUNNY	DRY	0	0	0	Below FREEZHOG
								,			
*	Locations: a =	access road	ls, b = sout	h side access road, c = other			<u>-</u>	<del></del>		• • • • • • • • • • • • • • • • • • • •	

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

LE 3
RECORD OF SWEEPING AND WATERING
CALUMET RIVER TERMINAL, CHICAGO, ILLINOIS

### SWEEPING:

					WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	MET	HOD	7			
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	Every 4 hours? (Y/N)	tru		Sus	ctivity spended to High ds (Y/N)	Sweeping	Comments, use of water spray, reasons to not sweeping, corrective measures, etc.
01-22-18	7:30 Am		Ċ 5		48	RAIN	<b>y</b>	У	N		N	E50	0	CLEAN-No Activity
1-22-18	1:30pm		CS		52	Civildy/wer	ý	ý	Ν	(Ø)	N	15	0	CLEAN - NO ACTIVITY
1-23-18	7:30 Am		CS		36	SNOW	<b>V</b>	<i>y</i>	N	Ø	N	NW 10	$\mathcal{O}$	No ACTIVITY
1-23-18	12:30 PM	1.30	MF	ABCDE	29	Ciousy	/ /	v	Ŋ	0	N	13	60	
1-24-18	7.30 AM	_	رح		27	CLOUBY	y	<i>y</i>	N	2	N	NINO	0	CLEAN
1-24-18	1:00Pm		05		33	Croudy	l)	γ '	N	Ø	N	UNW	<b>(</b> )	CLEAN
1-25-18	7.10AM	7:40	MF	BCE	29	Same Cullos	N	\ \	N	Ø	N	55 <i>£</i> 7	30	~
1-25-18	i	_	C5		37	PART	4	/ y	2	Ø	N	55E	0	CLEAN - NE ACTIVITY
1-26-18	7:30 AM	-	C 5	)	37	MOSTLY CLEAR	1	V	N	Ø	N	550)	C	
1-26-18	12:15PM		CS		50	MOSTLY	/ \u	7	N	Ø	2	35W	Ò	
						/		7		<u> </u>				
	Ī													

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

					WEATH	IER CONDITIONS	1				
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)		Number of Passes	Comments, reasons for not watering, corrective measures, etc.
01-22-18	7:30 An	_	ć 5		48	RAIN	Very WET	0	0	0	RAIN
01-22-18	1:30 pm		CS		52	Clouby	WET	0	Ü	0	RAIN/STORMS AM
1-23-18	7:30 Am		es		36	SNOW	WET	O	0	O	sucu
1-23-18	12.30 Pm	_	es		29	Cloudy sur	WET	0	0	0	WETSNOW
1-24-18	7:30 Am	_	C 5			CLOUBY	104	0	0	0	BELOWFREEZING
1-24-18	1: 00 pm	_	CS		33	Crousy	War	0	0	C	
1-25-18	7:10AM		CS		29	50m8	WET PUDDE	5 C	0	Q	BELOW FREEZING
1-25-18		-	cs		37	A A 2 T	WET	0	0	0	WET -NO between
1-26-18	7:30An	_	Cs	~	37	MOSTLY!	FROZEN	0	0		WET - FROZEN
1-26-18	12:15 PM		CS		50	MOSTLY	WET	0	0		WET

<sup>\*</sup>Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

#### SWEEPING:

	<del>,</del>		,		WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	METHOD	1			
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)		Every 35 trucks (Y/N)	Sus	ctivity pended to High ds (Y/N)		Comments, use of water spray, reasons for not sweeping, corrective measures, etc.
01-15-18	7:30 AM		CS		26	SNOW	ч	y	N	N	55w	0	CLEAN - NO ACTIVITY
11-15-18	1: COPm		05		24	CLULDS	4	4	N (0)	N	5 mg	0	11
1-16-18	7:30 A		<u>C5</u>		13	CLUEDY SNOW AUSILIA	! E <b>n</b> 40	1/	N	N	10	0	1.
1-16-18	2:30 An		Cs	٠	24	CLONSISUN	V	7 V	N (1)	N	122	0	CLEAN - IUAN
1-17-18	7:30 Am		03		8	PART		7	N	N	WSW	c)	CLEAR - NO ACTIVITY
1-17-18	1.00 Am		05		タス	PART	7	7 V	N (0)	N	wsw	0	11
1-18-18	7:20 AM		25		18	COZNE	7	/ V	N	N	5w	0	11 11
1-18-18	12:30 PM		Cs		<i>3</i> 0	MOSTLY SUNNY	<b>(</b> /	1	N (c)	N	5W	0	11
1-19-18			ĈS		27	LOSTLY SUNNY	<b>/</b>	V	N	N	55W	0	11 11
1-19-18	LIDOPM	1.30	MF	ABF	42	CWUDS	/ V	/ /	N (0)	N	55W	45	11 //
								1					
			ļ										

<sup>\*</sup>Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

					WEATH	IER CONDITIONS	1									
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Water Applied	Quantity of CaCl or salt applied	Number of Passes	Comments	s, reasons for n	ot water	ing, corr	ective m	neasures,
1-15-18	7:30 AM		CS		26	SNOW LIN	SNOW COUERED	0	0	0	Becow	REEZING.	- SN	04.	7	28.1
1-15-18	1:00 pm		CS		46	LIGHT SNOW	5NOW.	0	0	0	BELOW	FRES 216	-5	124) (	7	در/
1-16-18	7:30 Am		03		13	CLOUDY SNOW)	SNOW CONTERED	C	Ü	0					1.	CANULA)
1-16-18	2:30 pm	_	CS		, ,	e was Isun	7 NU 1187	0	Ò	0						ANULY
1-17-18	7:30 Am	_	05			PART	PACKED	٥	0	0	BELOW	FREEZ, N	e -PA	C K'S A	Six	Cours
1-17-18	1.00 PM	_	C S		ત્રહ	PART	PACICE B SNOW	0	0	0	1.	′,		i,	1,	1,
1-18-18	7.20 Am	-	<u>CS</u>		18	CifAi	BACKED SNOW COUFILE	0	O	0	14	$l_t$		1,	14	*
1-18-18	12:30 PM		Cs		30	MOSTLY SHANY MOSTLY	WER	0	0	0	11	11		it	′(	4
1-19-18	7:36 Am		05		27	MOSTLY / SUNDY	SNOW	0	0	0	17	11		ι,	l,	1.
1-19-18	1:00 PM		C5		42	CLOU'S 3	WET	0	0	0	11	11		11	1, "	17
				h sido assess road a labor									<del></del>			

<sup>\*</sup>Locations: a = access roads, b = south side access road, c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.

WEATHER CONDITIONS SWEEPING FREQUENCY METHOD

SWEEPING:

1-8-18

1-10-18

1-11-18

1-12-18

1-12-18

Date

Pavement clear Activity Every 4 Every 35 Suspended Total Time of Conditions of dust Comments, use of water spray, reasons for trucks | Due to High Sweeping Temp matter?\*\* hours? (wet, rainy, not sweeping, corrective measures, etc. (Y/N) (Y/N) (Y/N) Winds (Y/N) (mins) snow, dry, etc) Location(s) Swept\* (°F) CLCUAY w CLEAN 31 0 NO ACTIVITY DRIZZY COURS WSU 0 CLEAN CLOUDY WSW 0 NO ACTIVITY CLOUDY 34 0 TRUCK-UAN

> 55€ 35

55W

55W

MNW

N

N CO) NJ

0

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CLEAN

CLEAN

CLEAN

CLEAN

GUSTS

Gusts 15-30

NO ACTIVITY

\*Locations: a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

FOG

RAIN

Crouby

DRIZZUNG

F06

\*\*If roads are free and clear of material, no further records required.

25

05

05

05

05

05

CS

05

CS

Start Time End Time Initials

8,45

2'00 A

7:15 A

2:45

7.25A

12.30 PM

7:15 AM

12.45PM

WATERING:

WALLING.						IER CONDITIONS					
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Water Applied (gallons)	Quantity of CaCl or salt applied	Number of Passes	Comments, reasons for not watering, corrective measures, etc.
1-8-18		. (	CS		31	Diuzzy	30000 (008	SEW C)	O	0	BELOW FREEZING
1-8-18			C5		37	.5500	WET/SNOW	0	0	ව	GROUND, SNOW COVERED
1-9-18			cs		27	CLOUDY WENT FOG	WET	Ö	0	<u></u>	
1-9-18	1:30 P		CS		34	CLOURY	WET	0	0	O	MELTING SNOW
1-10-18	7:15 A	<b>-</b> -	0.5		35			0	0	0	MELTING SNOW
1-15-18	2.458		C5		46	Fog	WET	0	0	0	WETT - WEATNER
1-11-18		~	CS		54	DRIZZLING	WET	0	O	0	
1-11-18	12:30 P		CS		54	RAIN	WET	0	0	0	
1-12-18	7:15 A		CS		23	CLOUDY	WET/FROZ	į C	O	0	BELOW FREEZING WNW 16 mph WINDS
1-12-18	12:450		Ċs		26		WG-IFREEZ	. 0	0	0	BELOW FREEZINE N 20 Mph WINDS
	•					FLURRIFS		_			

\*Locations: a = access roads, b = south side access road, c = other

#### SWEEPING:

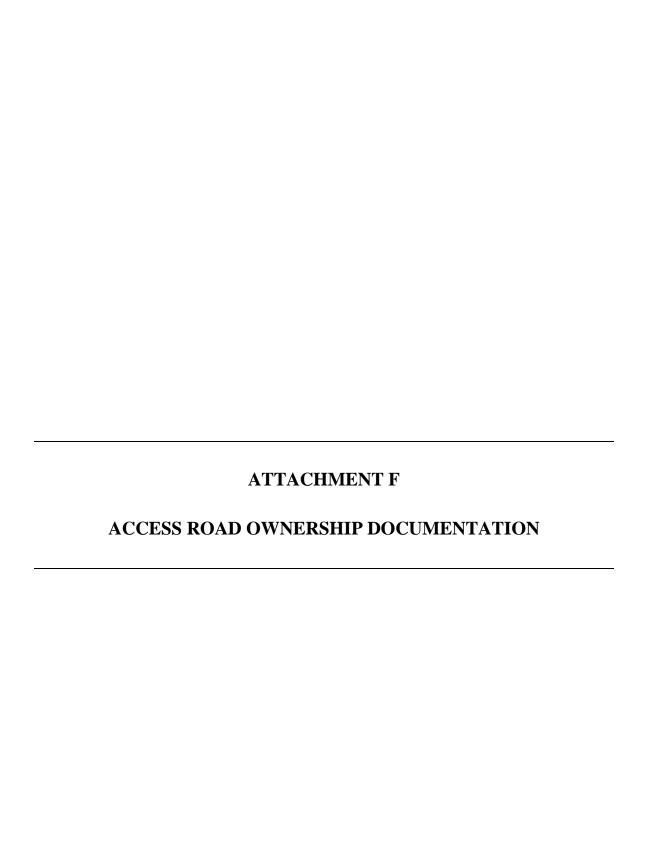
STILLING	: 				WEATH	ER CONDITIONS	SWEEPING FRE	QUENCY	METHOD	1			
Date	Start Time	End Time	Initials	Location(s) Swept*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Pavement clear of dust matter?** (Y/N)	1	Every 35 trucks (Y/N)	Sus Due	ctivity pended to High ds (Y/N)	Total Time of Sweeping (mins)	Comments, use of water spray, reasons fo not sweeping, corrective measures, etc.
01-9-18			_		_			_	_	-			CLUSED - HOLIDAY
0102-18	T	1 -	05		-7	FRUST FRO	10 y 25 in V	У	N	7	W32 7		CZZAN, NO ACTIVITY, ADVISOR
01-02-18			CS		0	ALCSTY SKNING	y'	y	N (0)	N	wsw 3		11 11 11
	7.30 AM	_	ĊS		13	CLOUDY FLURRIES	ý	\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	N	70	W3W		1: /. //
•	11:30 AN		05		一一	Cucuby Function	1	1/	N (0)	N	NW.	a	7. ,
1-04-18	8:00 Am	ļ	05		Z	CIOUDS	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1	N	N	NWA		CLEAN - NO ACTIVITY
1-001-18			CS		8	MOSTLY SUNNY		<u> </u>	N (a)	N	NW 10		0 -ONLY 2 F/B
1-05-18	7:30A		CS	*	0	PARTLY	$\sqrt{}$	ý	N	110	NW		CLEAN - NO ACTIVITY
	12:450		CS		8	PARTLY	/ Y	Ý	N(O)	N	NW		Λ "
						/		/					
					1 1				1	İ	[		

<sup>\*</sup>Locations a = Scale area indoors, b = BSM areas indoors, c = Bagging area, d = Crushing, e = Screening, f = BSM areas outdoors, g = Dock, h = other

					WEATH	IER CONDITIONS					
Date	Start Time	End Time	Initials	Location(s) Watered*	Temp (°F)	Conditions (wet, rainy, snow, dry, etc)	Roads already wet (indicate watering or weather)	Qty of Water Applied (gallons)		Number of Passes	Comments, reasons for not watering, corrective measures, etc.
01-01-18											CLOSED HOLIDAY
01002-18	7:00 AM	C5	_		-7	FRUST	FROZEN			_	BELCW ZERC, WIND CHILL ADVISCRIES
1-0278			1	_	0	M 6 STRY SUNNY	FRUZEN				1. 1. 1. 1. 1.
1-03-18	7.30 Am	25				FLURIZISS	SNOW (WELL) FRUZEN	1			FRIOZEN SNEW, BELOW FREEZING
1-03-18	11:30 AM	Cs	-		14	cioning Furris	3 NOW CON				BELOW FREEZING
1-04-18	8100 AM	C S	_		2	540	SNOW COVERS FROZEN	ے د	_	****	BELOW FREEZING (RF-11)
1-0-4-18	NOON	05	-	_	8	54224	Fredzen Snow	_	-		BELOW FREEZING
1-05-18	7:30 Am	Cs	-		0	CLUBY	FROZEN	_	_		BELLIN FREEZING
1-05-18	12:45P	@\$	_		8		FRUZEN SNOW CONE	129.0	_		Becow FREEZING
						/					
1			1		ļ			1			

<sup>\*</sup>Locations a = access roads b = south side access road c = other

<sup>\*\*</sup>If roads are free and clear of material, no further records required.



Property Characteristics for PIN:

### 26-18-200-026-0000



PROPERTY ADDRESS	INFO FOR TAX YEAR	INFO FOR TAX YEAR 2017						
10740 S BURLEY AVE	Estimated Property Valu	Estimated Property Value:						
CHICAGO	Total Assessed Value:	21,741						
60617 Township: HYDE PARK	Lot Size (SqFt): Building (SqFt):	52,098						
	Property Class:	5-80						
MAILING ADDRESS	Tax Rate (2016):	7.162						
CRONIMET CORPORATION 1 PILARSKY WAY	Tax Code (2017):	70030						

TAX BILLED AMOUNTS & TAX HISTORY	EXEMPTIONS	APPEALS			
2017: \$2,400.65* Paid in Full	2017: Not Available	2017: Not Available			
2016: \$4,364.81 Paid in Full	2016: 0 Exemptions Received	2016: Not Accepting Appeals			
2015: \$3,993.82 Payment History	2015: 0 Exemptions Received	2015: Not Accepting Appeals			
2014: \$4,043.88 Payment History	2014: 0 Exemptions Received	2014: Not Accepting Appeals			
2013: \$3,963.42 Payment History	2013: 0 Exemptions Received	2013: Not Accepting Appeals			
*=(1st Install Only)					
REFUNDS AVAILABLE	TAX SALE (DELINQUENCIES)	DOCUMENTS, DEEDS & LIENS			
No Refund Available	2017: Tax Sale Has Not Occurred	1433529101 - RELEASE - 12/01/2014			
	2016: No Tax Sale	1433529100 - RELEASE - 12/01/2014			
	2015: No Tax Sale	0704741091 - WARRANTY DEED - 02/16/20			
	2014: No Tax Sale	0010698219 - MODIFICATION - 08/02/2001			
	2013: No Tax Sale	00210967 - RELEASE - 03/24/2000			

ALIQUIPPA, PA 15001

All years referenced herein denote the applicable tax year (i.e., the year for which taxes were assessed). Parcels may from time to time be consolided subdivided. If information regarding a particular PIN appears to be missing for one or more tax years, it is possible that the PIN has changed due consolidation or subdivision. Users may contact the Cook County Clerk's Office for information regarding PIN lineage. Users should also note the information displayed on this site does not include special assessments (which are billed and collected by municipalities) or omitted taxes (which are assess an ad hoc basis by the Cook County Assessor's Office). Please direct inquiries regarding the status of special assessments to your municipality. Que regarding omitted taxes should be directed to the Assessor's Office.

Note: This printout cannot be used as a tax bill.